AN EXPLORATION OF ACCOUNTING ISSUES THROUGH A SERIES OF CASE STUDIES

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ABSTRACT
ASHLEY NICOLE THERESA IRONS: An Exploration of Accounting Issues through a Series of Case Studies
(Under the direction of Dr. Victoria Dickinson)

This work is a detailed compilation of accounting case studies that examines key accounting concepts and issues. Its purpose is to primarily explore accounting practices and methods by applying these concepts in order to analyze financial statements of existing companies. Each case study highlights a different accounting issue. This work also serves the purpose of exploring accounting concepts and technologies through research outside of case studies. Research was conducted in order to utilize the most current, accurate, and appropriate accounting principles and concepts in order to complete this work. Additionally, each topic presented throughout the series of case studies was completed in synchronization with an exploration of these concepts through Intermediate Accounting courses, so this thesis serves to educate the writer as well as the reader.

The research conducted while completing this work facilitates a more thorough understanding of not only accounting concepts themselves, but also how these accounting concepts should be applied to companies' financial statements. In addition, this work facilitates familiarization with financial statements and the footnotes to the statements, enhancing understanding of issues regarding reporting and disclosure. Overall, the exploration of accounting issues and concepts in this work provide a deeper understanding of accounting principles and ways in which to articulate and apply these principles.

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Chapter 1: Home Heaters, Incorporated

1. Introduction

This case study focuses on tracking and recording the financial transactions of two merchandising companies—Glenwood Heating, Inc. and Eads Heaters, Inc. Although most of the business practices of the two companies are rather similar, the way in which each company chooses to record its financial transactions and the small discrepancies in the decisions of the companies result in noticeable differences on the firms' respective financial statements. These financial statements impact shareholders' and lenders' decisions about how to allocate resources to each company. This case study reinforced the flow of information through journal entries to trial balances and financial statements to give me a more comprehensive understanding of the accounting cycle and the effects that small errors and discrepancies in recording transactions can have on financial statements. Specifically, I learned from this case study how to record interest and principle on loans and notes payable and how to record the transaction when a company capitalizes a lease. Working on this case study also provided me with a better understanding of how revenues, expenses, and dividends ultimately affect retained earnings. Furthermore, I improved my Microsoft Excel skills from working on this case; I learned how to better input formulas and how to format tables. I feel confident that the financial accounting foundation that this case is helping to solidify for me will be of assistance throughout current and future accounting courses, and I also believe that the Microsoft Excel skills that I am forming now will be of value once I enter the workforce.

2. Analysis of Discrepancies

2a. Allowance for Bad Debts

One example of a difference in accounting methods that impacts each company's financial statements in different ways is the relative amount of conservatism used by each company when calculating allowance for bad debts. The manager of Glenwood Heating, Inc. estimates that one percent of ending accounts will be uncollectible, while the manager of Eads Heaters, Inc. estimates that five percent of ending accounts receivable will be uncollectible. Eads Heaters, Inc. seems to be the more conservative firm in recording its financial transactions; however, this conservatism has an impact on the company's books, causing Eads Heaters, Inc.'s net income and retained earnings to appear less than those of Glenwood Heating, Inc.

2b. Inventory Valuation Methods

Furthermore, the use of different inventory valuation methods between Glenwood Heating, Inc. and Eads Heaters, Inc. causes each company's financial statements to differ. Both firms purchased 210 units of the same home heating unit for a total cost of $239,800, and both firms operate on periodic inventory systems. Glenwood Heating, Inc., however, uses the FIFO method of inventory valuation, while Eads Heaters, Inc. uses the LIFO method. This discrepancy results in Eads Heaters, Inc's cost of goods sold valued at $11,800 more than that of Glenwood Heating, Inc., causing Glenwood Heating, Inc.'s gross profit to be $11,800 more than Eads Heaters, Inc.'s gross profit. This difference in inventory valuation methods is ultimately one of the contributing factors to Glenwood Heating, Inc.'s higher net income and retained earnings.

2c. Methods of Depreciating Equipment

The companies' using different methods of recording depreciation on delivery equipment that both firms initially value at the same price also leads to discrepancies in the financial statements of each company, resulting in Eads Heaters, Inc. presenting lower net income and retained earnings on its financial statements. Eads Heaters, Inc. uses the double-declining balance method to depreciate its delivery equipment, as opposed to Glenwood Heating, Inc.'s use of the straight-line

method. This difference causes Eads Heaters, Inc.'s depreciation expense and accumulated depreciation on delivery equipment to be $10,000 more than that of Glenwood Heating, Inc. after one year, which ultimately contributes to Eads Heaters, Inc.'s lower net income and retained earnings.

2d. Lease Capitalization

An interesting detail to note is that while Glenwood Heating, Inc. presents a higher net income and retained earnings than that of Eads Heaters, Inc. for the year of 20X1, Eads Heaters, Inc. presents higher total assets on its balance sheet than does Glenwood, Inc. This difference is caused by Eads Heaters, Inc.'s decision to capitalize its lease on a large piece of operating equipment. While management at Glenwood Heating, Inc. decided to rent the equipment on a yearly basis for $16,000 for the years of 20X1 and 20X2, the management of Eads Heaters, Inc. negotiated a capital lease agreement for $92,000 to be paid over eight years at eight percent interest. While this decision does increase Eads Heaters, Inc.'s notes payable by $92,000, it also increases the company's assets by the same amount. This lease capitalization increases the company's interest and depreciation expenses, it decreases Eads Heaters, Inc.'s net income and ultimately retained earnings. Conversely, Glenwood Inc. incurs only a $16,000 rental expense from the operating equipment, but Glenwood Inc. does not recognize the operating equipment as an asset on its balance sheet. A further financial analysis of the companies, including financial statements, key ratios, and other information, is listed in Tables 15 through 34 in the appendix.

3. Conclusion

Of the two companies, Glenwood Heating, Inc. has a lower debt to equity ratio than does Eads Heaters, Inc. Additionally, Glenwood Heating, Inc. has higher a profit margin, return on total assets, and return on common stockholders' equity than does Eads Heaters, Inc. Although, as previously mentioned, certain differences in accounting methods result in slight discrepancies on

the companies' financial statements, the differences in these ratios are significant enough that Glenwood Heating, Inc. is the more favorable company with which to invest. Since both companies have times interest earned ratios of more than two, both are reasonably safe for lenders; however, because Glenwood Heating, Inc.'s times interest earned ratio is greater than that of Eads Heaters, Inc. by 1.78, Glenwood Heating, Inc. is the more favorable company for creditors (5m).

Chapter 2: Molson Coors Brewing Company

1. Introduction

This case study focuses on the financial statements of Molson Coors Brewing Company. Specifically, it examines the income statement and statement of comprehensive income of the company to compare and contrast the similarities and differences in each. The goal of this case study is to assist inexperienced financial statement users in understanding the meaning of each component of the income statement and statement of comprehensive income so that they might make more intelligent investment decisions.

From this case study, I gained a better understanding of the differences between the income statement and the statement of comprehensive income. I was able to analyze the components of comprehensive income and recognize the volatility of each component and the adverse effects that these items could have on persistency of net income if included in the income statement. I appreciated that this case provided me with real world examples of financial statements from a company; doing so further demonstrated to me the importance of each item in financial statements and the impact that these items can have on investors' decisions. For example, if "Special items, net" were not classified as an operating expense, income from operations would increase, but, as these items are likely to recur, financial statement users may not be in the best position to predict future cash flows.

In my future career, I will use the more in-depth understanding of comprehensive income that I gained from this case study. I now recognize that the components of comprehensive income are important and must be reported; however, I understand that the volatility of these components would hinder financial statement users in their search for a measure of persistent income.

Additionally, the analysis of the income statement that I performed in this case study assisted me in preparing me for my Intermediate Accounting exam.

a. What are the major classifications of an income statement?

Major classifications of the income statement include:

i. Net sales (the amount of sales a company generates less returns and allowances)

ii. Cost of goods sold (carrying costs of items sold)

iii. Gross profit (the difference between net sales and cost of goods sold),

iv. Operating expenses, categorized as

    a. Selling (costs incurred during the selling and marketing of a product)

    b. Administrative (costs incurred in organizing and directing a company)

v. Income from operations (earnings a company generates from conducting its usual business activities)

vi. Other revenues and gains (sources of income from nonoperating activities)

vii. Other expenses and losses (costs incurred from nonoperating activities)

viii. Net income for the year (earnings generated by a company after deducting all expenses from all revenues)

b. Explain why, under U.S. GAAP, companies are required to provide "classified' income statements.

Classified income statements highlight each major component of net income to provide financial statement users with greater detail about the reporting entity's activities. By examining each component of the classified income statement, users can better understand the sources of revenue and expenses. For example, financial statement users are able to identify specific company expenses, such as cost of goods sold, selling, and administrative expenses to understand the impacts of each specific category on net income.

c. In general, why might financial statement users be interested in a measure of persistent income?

Financial statement users might be interested in a measure of persistent income in order to evaluate the company's past performance and predict future earnings and cash flows. If investors are able to compare consistent financial statements of a company throughout reporting periods and identify stable, continuous earnings, they feel that the investment carries less risk and is more likely to generate earnings.

d. Define comprehensive income and discuss how it differs from net income.

Comprehensive income refers to all changes in equity of an entity during a period from transactions and other events and circumstances from nonowner sources. It includes all changes in equity during a period except those resulting from investments by owners and distributions to owners. Specifically, comprehensive income, unlike net income, includes unrealized gains and losses on available for sale debt securities.

e. The income statement reports "Sales" and "Net Sales." What is the difference? Why does Molson Coors report these two items separately?

Sales is the total of the selling prices of all the goods that were sold during the given period. Net sales refers to the revenue the company receives after purchase discounts, allowances, and returns. For example, the amount that may have been discounted on a sale due to the reception of a timely payment is deducted from sales to contribute to net sales. For this specific company, net sales is the sales revenue recorded less excise taxes, which are taxes that the government charges Molson Coors Brewing for manufacturing alcohol. Excise taxes are included in net sales because the company must pay a percentage of its net sales in taxes. The company is trying to convey to the investor that excise taxes are pulled directly from revenues, rather than net income.

f. Consider the income statement item "Special items, net" and information in Notes 1 and 8.

    a. In general, what types of items does Molson Coors include in this line item?

In general, Molson Coors includes unusual and infrequent transactions in its special items on the income statement. These items are not a part of a company's usual operations. Common types of special items are losses on write-down (impairment) of assets, restructuring charges, other gains and losses from abandonment of long-term assets, effects of a strike or natural disaster, and gains and losses on the sale of investment securities.

    b. Explain why the company reports these on a separate line item rather than including them with another expense item. Molson Coors classifies these special items as operating expenses. Do you concur with this classification? Explain.

The company reports these expenses as a separate line item instead of including them with another statement item to indicate to investors that these expenses are not part of the company's core operations. The company chooses to report these special items as a part of operating expenses because they are likely to recur. I agree with the firm's decision to include these expenses in operating income because they are likely to recur in the future. Therefore, providing

investors with these expenses that are classified as operating expenses gives investors a more comprehensive view of company expenses and allows them to make better predictions about the future.

g. Consider the income statement item "Other income (expense), net" and the information in Note 6. What is the distinction between "Other income (expense), net" which is classified as a nonoperating expense, and "Special items, net" which Molson Coors classifies as an operating expense?

Items included in "Other income (expense), net," are not believed to be indicative of the company's core operations. For example, items such as acquisitions and losses related to changes in foreign currency are unrelated to the company's usual operating activities, and these cannot easily be used as an indicative measure of future earnings and cash flows because they are unusual and unlikely to recur in the foreseeable future.

h. Refer to the statement of comprehensive income.

    a. What is the amount of comprehensive income in 2013? How does this amount compare to net income in 2013?

The amount of comprehensive income in 2013 is $760.2 million, which is significantly larger than net income attributable to Molson Coors Brewing Company of $567.3 million.

    b. What accounts for the difference between net income and comprehensive income in 2013? In your own words, how are the items included in Molson Coors' comprehensive income related?

Unlike net income, comprehensive income includes fair value changes that might be misleading if included in net income. The items included in comprehensive income are related

because they are all subject to frequent fluctuations; these items should not be included in net income because they do not assist financial statement users in making realistic predictions of future earnings and cash flows. Reporting items such as foreign currency translation adjustments and unrealized gain or loss on derivative instruments in comprehensive income, rather than net income, reduces volatility in net income while revealing changes in market value of certain items to investors through the statement of comprehensive income.

i. Not required.

j. Consider the information on income taxes, in Note 7.

    a. What is Molson Coors' effective tax rate in 2013?

Effective income tax rate equals income tax expense divided by pretax income. The company's income tax expense is $84 million, and the income from continuing operations before income taxes is $654.5 as shown on the Consolidated Statement of Operations. These two numbers yield an effective income tax rate of 12.8 percent, which is equal to the effective tax rate shown in Note 7.

Chapter 3: Pearson PLC

Introduction

This case study primarily focuses on the components that comprise the consolidated income statement of Pearson PLC. Specifically, it examines the components of the income statement to analyze accounts receivable, allowance for doubtful accounts, and purchase returns and allowances. This case study focuses on the estimations used in determining provisions for bad and doubtful debts (allowance for doubtful accounts) and provisions for sales returns (allowance for sales returns and allowances) and the way in which these estimations are recorded in T-accounts and journalized. The goal of this case study is to familiarize students with receivables and give students more thorough understandings of receivables and the way in which accounts related to receivables affect net sales on the income statement.

From this case study, I gained a more thorough understanding of receivables and the effects of accounts that are related to receivables on the income statement. I examined the components of net sales to more thoroughly understand the allowance for bad debts and allowance for sales returns and allowances accounts. Additionally, I learned the differences between aging-of-accounts and percentage-of-sales procedures to estimate allowance for bad debts, and I learned some benefits and drawbacks of each method.

In the future, I hope to utilize the more thorough understanding of receivables that I gained from this case in not only my academic coursework, but in my career as an auditor. In Accy 309, the next exam includes receivables, so I feel as though I have gained a jumpstart in preparing for the next chapter that we will cover in class. Additionally, I hope to become an auditor for a Big Four accounting firm upon graduation, so a more comprehensive understanding of the effects of

estimations of allowance for doubtful accounts and allowance for sales returns and allowances on the income statement when properly recording receivables will be beneficial to my future career.

a. What is an account receivable? What other names does this asset go by?

Receivables are obligations of a customer to pay another party for money, goods, and services. An account receivable is a verbal promise of one party to pay another party for goods or services. Accounts receivables are short-term credit extensions; therefore, accounts receivable are current assets. Another name for this asset is a trade receivable. Trade receivables arise from one company's providing goods and services to another company with the promise of payment at a future date. Trade receivables may be classified as accounts receivable or notes receivable, depending on the nature of the transaction and the agreement made between the selling and purchasing parties.

b. How do accounts receivable differ from notes receivable?

Accounts receivable are verbal, short-term promises to pay for goods and services, and they are normally collected within 30 to 60 days. Notes receivable, however, are written agreements for a buyer to pay a seller for goods and services sold. This agreement specifies a future date at which the payment should be made. Unlike accounts receivable, notes receivable can be classified as current or noncurrent assets, depending on the expected date of payment.

c. What is a contra account? What two contra accounts are associated with Pearson's trade receivables (see Note 22)? What types of activities are captured in each of these contra accounts? Describe factors that managers might consider when deciding how to estimate the balance in each of these contra accounts.

A contra account is a general ledger account; its purpose is to reduce the balance of a related account. Contra accounts can reduce the balance of asset, liability, or equity accounts. Provisions (allowances) for bad and doubtful debts and anticipated future sales returns are associated with

Pearson's trade receivables. Trade receivables are shown at their net value, so provisions for bad and doubtful debts and anticipated future sales returns are not listed directly below trade receivables in Note 22. First, provisions for bad and doubtful debts and anticipated future sales returns are estimated, and journal entries are made in the appropriate accounts. In the allowance for bad and doubtful debts account, an estimation of bad debts and write-offs of bad debts are recorded. To estimate provision for bad debts, bad debt expense is debited and allowance for doubtful accounts is credited. When it is determined that a customer is not going to pay for the goods or services received, allowance for doubtful accounts should be debited and accounts receivable should be credited. At the end of the period, if a company has a debit balance in allowance for doubtful accounts due to these journalizing activities, the period's bad debt expense has been underestimated. In the provision for sales returns account, an estimation of sales that will be returned is recorded. When determining how to estimate provisions for bad and doubtful debts, managers might look at customers' payment histories to make predictions about the future. Managers also may use an aging-of-accounts analysis of accounts receivable to estimate the provisions for bad and doubtful debts; this method is used because older debts are less likely to be paid. Additionally, managers may use a percentage-of-sales procedure to estimate the allowance for doubtful accounts, in which a reasonable estimate of total percentage of receivables that are unlikely to be paid is deducted from gross receivables.

d. Two commonly used approaches for estimating uncollectible accounts receivable are the percentage-of-sales procedure and the aging-of-accounts procedure. Briefly describe these two approaches. What information do managers need to determine the activity and final account balance under each approach? Which of the two approaches do you think results in a more accurate estimate of net accounts receivable?

The percentage-of-sales procedure, or percentage-of-receivables procedure, is used to estimate the portion of outstanding receivables that the company will not collect. The

percentage-of-sales approach does not identify specific accounts that will be uncollectible; it provides a reasonable estimate of uncollectible accounts based on total accounts receivable. The aging-of-accounts procedure, however, analyzes past experience in various age categories of accounts to provide a different percentage of uncollectible accounts receivable. Generally, the older the debt, the less likely the debt is to be repaid; the aging-of-accounts procedure takes this idea into consideration. Additionally, the aging-of-accounts procedure can be used to classify receivables by riskiness and identify accounts that are less likely to pay. Under the percentage-of-sales approach, managers need to know the total amount of accounts receivable and a fairly accurate estimate of the net realizable value of accounts receivable in order to determine the final account balance. Under the aging-of-accounts approach, however, managers need more analytical data. In order to determine the activity and final account balance under the aging-of-accounts approach, managers need to create an aging schedule of accounts receivable, which used past experience to estimate a percentage of uncollectible receivables according to various age categories. To do this, managers need past data on uncollectible accounts at various ages for different customers, and, of course, the total amount of accounts receivable. The aging-of-accounts procedure results in a more accurate estimate of net accounts receivable. Under this approach, companies gather more data on past events to form a more realistic idea of which accounts will actually be uncollectible, as opposed to approximating uncollectible receivables based on a fairly reasonably estimate. The identification of specific accounts at their various ages and data analysis provided by the aging-of-accounts approach results in a more accurate estimate of net accounts receivable.

e. If Pearson anticipates that some accounts will be uncollectible, why did the company extend credit to those customers in the first place? Discuss the risks that managers must consider

with respect to accounts receivable.

Pearson extended credit to customers although the company estimated that some accounts would be uncollectible because although it is possible to conduct an aging-of-accounts analysis, it is still difficult to predict which account and amount of that account will be uncollectible. Therefore, Pearson is willing to take the risk in extending reasonable credit to customers because the benefit of receiving revenue outweighs the risk of having to write off some portion of uncollectible receivables. In extending credit to customers, managers must consider the risk that the customer will not pay. Managers, however, must use their judgment to extend reasonable amounts of credit to customers while keeping in mind the potential benefit of earning revenue from the customer versus the risk of losing money on an uncollectible account.

f. Note 22 reports the balance in Pearson's provision for bad and doubtful debts (for trade receivables) and reports the account activity ("movements") during the year ended December 31, 2009. Note that Pearson refers to the trade receivables contra account as a "provision." Under U.S. GAAP, the receivables contra account is typically referred to as an "allowance" while the term provision is used to describe the current-period income statement charge for uncollectible accounts (also known as bad debt expense).

   i. Use the information in Note 22 to complete a T-account that shows the activity in the provision for bad and doubtful debts account during the year. Explain, in your own words, the line items that reconcile the change in account during 2009.

Table 1: Provision for Bad and Doubtful Debts

Exchange differences	**5**	**72**	Beginning balance
		26	Income statement movements
Utilised	**20**	**3**	Acquisition through business combination
		Ending balance	**76**

The beginning balance of the account is the balance carried over from the end of 2008. Exchange differences adjust for the effects that differences in foreign exchange rates have on the provision for bad and doubtful debts. The income statement movements line item estimates the bad debt expense for the period, which affects net income. The utilised line item is the portion of accounts receivable that was written off to bad debts expense. Acquisition through business combination represents the allowance for doubtful accounts taken on by acquiring or combining another business during the period. In this case, acquisition through business combination increased the normal account balance of provision for bad and doubtful debts. The ending balance of the account is a credit balance, so Pearson overestimated its bad debt expense for the year.

ii. Prepare the journal entries that Pearson recorded during 2009 to capture 1) bad and doubtful debts expense for 2009 (that is, the "income statement movements") and 2) the write-off of accounts receivable (that is, the amount "utilised") during 2009. For each account in your journal entries, note whether the account is a balance sheet or income statement account.

1) To capture bad and doubtful debts expense (income statement movements):

Bad and doubtful debts expense 26 DR

(income statement account)

Provision for bad and doubtful debts

(balance sheet account—contra account

to trade receivables) 26 CR

2) To capture the write-off of accounts receivable (amount utilised):

Provision for bad and doubtful debts 20 DR

(balance sheet account—contra

account to trade receivables)

Trade receivables (balance sheet account) 20 CR

iii. Where in the income statement is the provision for bad and doubtful debts included?

The provision for bad and doubtful debts is a contra account to trade receivables. Therefore, it is not included in the income statement. However, bad debt expense, which is related to provision for bad and doubtful debts, is included as a part of net sales in the consolidated income statement.

g. Note 22 reports that the balance in Pearson's provision for sales returns was £372 at December 31, 2008 and £354 at December 31, 2009. Under U.S. GAAP, this contra account is typically referred to as an "allowance and reflects the company's anticipated sales returns.

i. Complete a T-account that shows the activity in the provision for sales returns account during the year. Assume that Pearson estimated that returns relating to 2009 Sales to be £425 million. In reconciling the change in the account, two types of journal entries are required, one to record the estimated sales returns for the period and one to record the amount of actual book returns.

Table 2: Provision for Sales Returns

Actual book returns	**443**	**372**	Beginning balance
		425	Estimation of sales returns and allowances
		354	Ending balance

ii. Prepare the journal entries that Pearson recorded during 2009 to capture, 1) the 2009 estimated sales returns and 2) the amount of actual book returns during 2009. In your answer, note whether each account in the journal entries is a balance sheet or income statement account.

1) To capture the 2009 estimated sales returns:

Sales returns and allowances 425 DR
(income statement account—contra account to sales)
  Provision for sales returns (income statement account—contra account to sales returns and allowances) 425 CR

2) To capture the amount of actual book returns during 2009:

Sales returns and allowances 443 DR
(income statement account—contra account to sales)
  Trade receivables (balance sheet account) 443 CR

iii. In which income statement line item does the amount of 2009 estimated sales returns appear?

The amount of 2009 estimated sales returns is included in the sales portion of the consolidated income statement. Estimated sales returns is a portion of the provision for sales returns and allowances account. The ending balance of the provision for sales returns and allowances account is one of the items deducted from gross sales to reach net sales.

h. Create a T-account for total or gross trade receivables (that is, trade receivables before deducting the provision for bad and doubtful debts and the provision for sales returns). Analyze the change in this T-account between December 31, 2008 and 2009. (Hint: your solution to parts f and g will be useful here). Assume that all sales in 2009 were on account. That is, they are all "credit sales." You may also assume that there were no changes to the account due to business combinations or foreign exchange rate changes. Prepare the journal entries to record the sales on account and accounts receivable collection activity in this account during the year.

Table 3: Gross Trade Receivables

Net trade receivables	**989**	
Provision for bad and doubtful debts,	**76**	
Provision for sales returns	**354**	
Gross trade receivables	**1419**	

Pearson's gross trade receivables in 2009 were £1419, meaning that Pearson had £1419 in gross sales during 2009. After its provisions for sales returns and bad and doubtful debts, however, Pearson's net trade receivables in 2009 were £989. Provisions for sales returns and bad and doubtful debts must be subtracted from gross trade receivables to yield net trade receivables

in order to give the company a more accurate reflection of the revenue it will actually receive for the period. The journal entries Pearson would make to record the sales on account and accounts receivable collection activity during the year are as follows:

To record sales on account:

Trade receivables 1419 DR

Sales Revenue 1419 CR

To record accounts receivable collection activity:

Cash DR

Trade receivables CR

The amount journalized in this transaction is subject to the amount received from the customer.

Chapter 4: ACCY 303 Case Study

Introduction

In this case study, Dr. Dickinson asked students to work a difficult problem from Accy 303 and explain the steps to work the problem. I chose P7-6 because it was a problem that Dr. Stocks assigned which I struggled to grasp conceptually. Additionally, I feel that in preparing for the Accy 303 exam on Friday, Chapter Seven is the most difficult to understand. This case study reinforces the steps of journalizing various accounts receivable transactions and understanding the mechanics of allowance for doubtful accounts.

P7-6: The balance sheet of Starsky Company at December 31, 2016, includes the following:

Notes receivable	$ 36,000	
Accounts receivable	182,100	
Less: Allowance for doubtful accounts	17,300	$200,800

Transactions in 2017 include the following:

1. Accounts receivable of $138,000 were collected including accounts of $60,000 on which 2% sales discounts were allowed.

2. $5,300 was received in payment of an account which was written off the books as worthless in 2016.

3. Customer accounts of $17,500 were written off during the year.

4. At year-end, Allowance for Doubtful Accounts was estimated to need a balance of

$20,000. This estimate is based on an analysis of aged accounts receivable.

Instructions:

Prepare all journal entries necessary to reflect the transactions above.

Solution:

1. First, we know to credit accounts receivable for the full amount of $138,000. However, we must note that included in the $138,000 amount were accounts of $60,000 on which 2% sales discounts were allowed. Therefore, we must compute the sales discount on these accounts by multiplying $60,000 by 3%, which gives us $1,200. Because Sales Discounts is a contra revenue account, its normal balance is a credit. The only other account affected by this transaction is Cash, which is increased by the difference of the Accounts Receivable and Sales Discounts amounts. The journal entry is as follows:

   Cash $136,800 DR

   Sales Discounts 12,000 DR

      Accounts Receivable 138,000 CR

2. We know that the previous entry to write off the account was a debit to Allowance for Doubtful Accounts and a credit to Accounts Receivable in the amount of $5,300. When the previously written off account is paid, we must first reverse the previous entry. Then, we must record the reception of cash. The necessary journal entries are as follows:

   Accounts Receivable $5,300 DR

      Allowance for Doubtful Accounts 5,300 CR

Cash	5,300 DR	
Accounts Receivable		5300 CR

3. We have previously established an Allowance for Doubtful Accounts in our books. This account is a contra asset, so it has a normal credit balance. When we write off customer accounts as worthless, we are using the allowance that we have already established. Therefore, we debit Allowance for Doubtful Accounts. We are also removing a receivable from our books, so we credit Accounts Receivable. The journal entry is as follows:

Allowance for Doubtful Accounts	$17,500 DR	
Accounts Receivable		$17,500 CR

4. The needed balance of $20,000 in Allowance for Doubtful Accounts represents the ending balance of the account. The $17,300 balance in Allowance for Doubtful Accounts on December 31, 2016 represents the beginning balance of the account. Throughout the year, we have made entries to Allowance for Doubtful Accounts that are shown in the previous parts of this exercise. We must take the beginning and ending balance of the account and post the entries that we have made throughout the year to the general ledger account. From there, we can figure out the plug that we need to get Allowance for Doubtful Accounts to the desired ending balance of $20,000. First, we will make our T-chart:

Table 4: Allowance for Doubtful Accounts

Account write-off	**17,500**	**17,300**	Beginning balance
		5,300	Payment received
		14,900	Increase to account
		20,000	Ending Balance

By creating and analyzing the T-chart, we can see that Allowance for Doubtful Accounts should increase by $14,900. This number represents a bad debt expense. The necessary journal entry is as follows:

Bad Debt Expense 14,900 DR

Allowance for Doubtful Accounts 14,900 CR

Chapter 5: Volvo Group

Introduction

This case study focuses on the effect of research and development activities on the financial statements. Specifically, it examines the differences in recording research and development expenditures under IRFS versus GAAP, and it highlights the benefits and downfalls of each. This case study encourages students to focus on the way in which capitalizing or expensing research and development activities affects the income statement and balance sheet and even the strategic decisions that companies make.

From this case study, I gained a better understanding of the effects of different ways of recording research and development expenditures on net income and total assets. This case study helped me better understand the differences in GAAP and IFRS recording methods; this assignment highlighted the first major difference between IFRS and GAAP that resonated with me. Additionally, completing this assignment was the first experience I have had that has caused me to call into question Generally Accepted Accounting Principles. However, I see this questioning of GAAP as a valuable step in my process to becoming an accountant; in order to be a successful CPA, I must not only fully understand GAAP, but be able to critically examine its components.

This case study will be beneficial to me in my future career because it will help me understand the effects of research and development expenditures on the financial statements. In addition, this case study may be beneficial to me in my future career if I choose to exit the field of public accounting and enter a strategic management position of a firm in industry. Research and development activities can cause a significant impact on net income when expensed, but they are

critical to any successful company. Finding a balance between expenses to net income and research to promote innovation is an important, yet difficult job of any manager. A thorough understanding of the financial statements and the effects of capitalizing or expensing research and development activities will help me in this manner if I ever choose to enter a strategic management position for a firm in industry.

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a. The 2009 income statement shows research and development expenses of SEK 13,193 (millions of Swedish Krona). What types of costs are likely included in these amounts?

Volvo Group is a supplier of commercial vehicles such as trucks, buses, construction equipment, engines, drive systems, and aircraft engine components. The company's research and development activities are largely environmentally focused, so its research and development expenses likely consist of research on ways to reduce the environmental impact on fuel emissions and ways to comply with and exceed global environmental regulations, such as research on ways to create engines that run on minimal or no fossil fuel and vehicles that use alternative clean energy sources. Volvo Group is likely still searching for ways to remain competitive in its industry, so it is also probably incurring research and development expenditures while searching for ways to improve the overall quality of its products. Costs such as these that are incurred due to development of new products, production systems, and software without a high degree of certainty are reported as research and development expenses for Volvo Group.

b. Volvo Group follows IAS 38—Intangible Assets, to account for its research and development expenditures (see IAS 38 excerpts at the end of this case). As such, the company capitalizes certain R&D costs and expenses others. What factors does Volvo Group consider as it decides which R&D costs to capitalize and which to expense?

Research and development expenditures are typically only capitalized during the actual industrialization phase of product development. That is, research and development expenditures are only recorded as assets when the company is already working towards a probable future economic benefit. Otherwise, research and development costs are expensed. In other words, Volvo Group expenses research and development costs if it cannot reasonably predict and is not already working towards a specific use for the research. If the research and development costs, however, are are incurred during the time that the product is being industrialized, Volvo Group capitalizes these expenditures.

c. The R&D costs that Volvo Group capitalizes each period (labeled Product and software development costs) are amortized in subsequent periods, similar to other capital assets such as property and equipment. Notes to Volvo's financial statements disclose that capitalized product and software development costs are amortized over three to eight years. What factors would the company consider in determining the amortization period for particular costs?

In determining the amortization period for particular costs, the company would consider the useful life of the asset. If a research and development cost has been capitalized, the amortization period would be determined by the expected use of the asset itself. For example, if the benefit of the research and development, such as a small enhancement to a certain product, is only expected to last a short period of time, the company may determine that the useful life of this capitalized asset is only two years. If, however, the expected benefit of the research and development, such as the creation of an entirely new product line, is determined to last a long period of time, the company may determine that the useful life of the capitalized asset is eight years.

d. Under U.S. GAAP, companies must expense all R&D costs. In your opinion, which accounting principle (IFRS or U.S. GAAP) provides financial statements that better reflect costs and benefits of periodic R&D spending?

In my opinion, IFRS accounting principles provide financial statements that better reflect costs and benefits of periodic research and development spending. Under IFRS principles, some portion of research and development expenditures may be capitalized and amortized periodically. Capitalizing some research and development costs, rather than expensing these costs, better reflects the position of the company on the financial statements because research and development is, in my opinion, an investment in the company's future. It is necessary for companies to invest in research and development in order to remain viable and competitive in the long run. Therefore, research and development costs should not always be treated as expenses in the same way that electricity and telephone bills are; some research and development costs should be capitalized because the knowledge and innovation that these expenditures yield are likely to provide future economic benefit for the company. However, the capitalization of research and development costs must be strictly regulated and monitored so that companies do not attempt to manipulate their financial statements by inaccurately recording too few expenses.

e. Refer to footnote 14 where Volvo reports an intangible asset for "Product and software development." Assume that the product and software development costs reported in footnote 14 are the only R&D costs that Volvo capitalizes.

   i. What is the amount of the capitalized product and software development costs, net of accumulated amortization at the end of fiscal 2009? Which line item on Volvo Group's balance sheet reports this intangible asset?

The amount of capitalized product and software development costs net of accumulated amortization during the year 2009 is SEK 11,409. One can arrive at this number by subtracting accumulated depreciation and amortization of product and software development from the product and software development value on the balance sheet. This number is a portion of the line item titled "Intangible assets" on Volvo Group's consolidated balance sheet.

ii. Create a T-account for the intangible asset "Product and software development," net of accumulated amortization. Enter the opening and ending balances for fiscal 2009. Show entries in the T-account that record the 2009 capitalization (capital expenditures) and amortization. To simplify the analysis, group all other account activity during the year and report the net impact as one entry in the T-account.

Table 5: Product and Software Development

Beginning Balance, net	12,381	448	Other account activity, net
Capital Expenditures	2,602	3,126	Amortization (capital expenditures)
Ending Balance 11,409			

f. Refer to Volvo's balance sheet, footnotes, and the eleven-year summary. Assume that the product and software development costs reported in footnote 14 are the only R&D costs that Volvo capitalizes.

i. Complete the table below for Volvo's Product and software development intangible asset.

Table 6: Product and Software Development Intangible Assets

(in SEK millions)	**2007**	**2008**	**2009**
1) Product and software development costs capitalized during the year	2,057	2,150	1,858
2) Total R&D expense on the income statement	11,059	14,348	13,193
3) Amortization of previously capitalized costs (included in R&D expense)	2,357	2,864	2,830
4) Total R&D costs incurred during the year = 1 + 2 - 3	10,759	13,634	12,218

iii. What proportion of total R&D costs incurred did Volvo Group capitalize (as product and software development intangible asset) in each of the three years?

Shown in the table below.

Table 7: Capitalization Costs

	2007	**2008**	**2009**
Proportion of total R&D costs capitalized	18.60%	14.98%	14.08%

g. Assume that you work as a financial analyst for Volvo Group and would like to compare Volvo's research and development expenditures to a U.S. competitor, Navistar International Corporation. Navistar follows U.S. GAAP that requires that all research and development costs be expensed in the year they are incurred. You gather the following information for Navistar for fiscal year end October 31, 2007 through 2009.

Table 8: Volvo Group Key Performance Indicators

(in US $ millions)	**2007**	**2008**	**2009**
Total R&D costs incurred during the year, expensed on the income statement	375	384	433
Net sales, manufactured products	11,910	14,399	11,300
Total assets	11,488	10,390	10,028
Operating income before tax	(73)	191	359

i. Use the information from Volvo's eleven-year summary to complete the following table:

Table 9: Volvo Group Net Sales to Total Assets

(in SEK millions)	**2007**	**2008**	**2009**
Net sales, industrial operations	276,795	294,932	208,487
Total assets, from balance sheet	321,647	372,419	332,265

ii. Calculate the proportion of total research and development costs incurred to net sales from operations (called, net sales from manufactured products, for Navistar) for both firms. How does the proportion compare between the two companies?

In comparing both companies' proportions of total research and development costs incurred to net sales from operations, as shown in the table below, Volvo Group seems to be spending a larger portion of its net sales on research and development than is Navistar. This difference in expenditure could be due to different strategic plans or company values, but it could also be due to the fact that Volvo Group files its financial reports under IFRS, so it is able to capitalize a portion of its research and development expenditures, rather than writing these costs off as expenses. This enablement may incentivize the company to spend a larger portion of its earnings on research and development.

Table 10: Proportion of Total R&D costs Incurred to Net Sales from Operations

	2007	**2008**	**2009**
Navistar	3.14%	2.67%	3.83%
Volvo Group	3.88%	4.62%	5.86%

Chapter 6: Data Analytics and Splunk

Introduction

The goal of this case study is to focus on a tool used for data and analytics, and attempt to understand the benefits of this tool as they apply to my future career. I was assigned Splunk, a tool that provides organizations with real-time information and business value through the aggregation and analysis of machine data. In this case, I learned a great deal about the Splunk technology and utilized critical thinking to apply this understanding to potential workplace situations in the audit, tax, and advisory sectors of public accounting. I also used my understanding of the benefits of Splunk to write a note to a potential employer encouraging him or her to implement this technology in the workplace.

From this case study, I gained a better understanding of not only Splunk technology, but technology in general. I learned the definition of machine data and gained a better understanding of the direction in which technological advancements are moving. This case brought to my attention the tremendous amount of data available; it showed me that individuals tend to have problems analyzing and leveraging this data and introduced me to new technologies to help address this problem. This case also helped me sharpen my research skills. Because of the fact that I am usually working in my Intermediate Accounting book, it had been a while since I completed a research project, and the project was a refreshing change of pace. Additionally, completing this assignment showed me that the future will demand a large number of individuals with knowledge of data and analytics.

This case study will be beneficial to me in my future career because it will help me to leverage technology in the workplace. It is likely that at some point in my career, I will be unfamiliar with a software tool used by a company. This assignment allowed me to practice my research skills to prepare for that day. Additionally, this case study showed me the true value that Splunk technology can add to an organization. The information about not only Splunk, but data, technology, and software in general that I learned from this case will be of great benefit to me when I enter the workforce. The amount of available data in the world is quickly multiplying, and companies demand employees who know understand and are capable of analyzing data by using tools like Splunk. Familiarizing myself with tools such as Splunk and information introduced to me through this case will make me a more marketable potential employee.

1. Identify the history and purpose of this tool and describe, in general, how it is used to make business decisions. Be specific about what kind of technology platform it uses, etc. and other resources that need to be in place to fully utilize the functionality of the tool**.**

Splunk's goal is to deliver real-time answers and business value from machine data to enable more efficient and effective decision-making. Splunk Enterprise optimizes companies' IT by monitoring and analyzing machine data to provide companies with valuable insights into transactions, customer behavior, machine behavior, security threats, fraudulent activity, and more. Splunk enables organizations to use data as an asset, allowing companies to be proactive, rather than reactive, in critical decision-making. Splunk needs machine data in order to fully utilize its functionality. Machine data is created by the activity of networked devices, so it contains a record of all activity and behavior of an organization's customers, users, transactions, applications, servers, networks, and mobile devices. The goal of Splunk is to leverage this machine data to provide what Splunk calls "Operational Intelligence," or the conversion of data pieces into insightful, useful information. To make information more user-friendly and accessible, Splunk

uses data visualizations, such as color-coded graphs, that provide users with real-time information about specific components of the organization.

Splunk was created in 2002 by Eric Swan and Rob Das. According to its founders, the company earned its name because people felt like they had to search through caves just to find data to troubleshoot problems. Between the years of 2002 and 2004, Swan and Das spoke with the leaders of over 60 organizations and built prototypes of the Splunk model, hoping to address the issue of identifying and solving problems within a company's infrastructure. During this time, Swan and Das noticed that employees were having to sift through machine data themselves in order to address problems, which can be a tedious and frustrating process. The creation of Splunk was inspired by Google; the founders of Splunk wanted people to be able to search through machine data as easily as they can search the web through Google. The goal of Swan and Das was to create a mass market, user-friendly IT tool, and Splunk's ability to leverage log files and machine data to provide users with understandable information has accomplished this goal.

2. What special skills are needed to use this tool to aid in business decision making. How might a student like yourself gain those skills?

The beauty of Splunk is its user-friendliness; the product is designed so that the business people who need to access and understand data can do so in a reasonable amount of time with minimal frustration. In order to use Splunk, one would need a basic understanding of business and accounting in order to interpret the information provided. Additionally, Splunk provides educational videos on its website so that users can better understand how to leverage the software's capabilities. Before exploring these educational videos, however, a basic knowledge of system administration is necessary. For example, a person may not be successful in understanding Splunk if he or she does not have at least some experience with IT or working with computer

software. If a person has this basic background knowledge, however, the informational videos on Splunk's website should be of great assistance.

A student like myself will gain basic computer knowledge through classes such as Accounting Information Systems and Management Information Systems. Additionally, the internships I have completed taught me basic Excel and software skills. In today's world of growing technology, students should also strive to develop on their own some basic technological knowledge. Students such as myself can teach themselves about information technology through trial and error and by reading online about emerging technologies. Once a student like myself is able to extract and leverage the data provided by a tool like Splunk, he or she will have gained the basic business and accounting knowledge necessary to make decisions based upon this information through accounting and business courses offered at the University of Mississippi.

3. How, specifically, would you use the tool in the following business settings? Create at least three specific scenarios for each category in which the tool would lead to more efficiency and/or better effectiveness. Be sure to describe what kinds of data your tool would use for each scenario.

    a. Auditing

In the audit business setting, an audit associate might like to access Splunk if he or she suspects that his or her client's internal controls have been breached. For example, if an auditor suspects that one of her client's employees has been electronically stealing money, she could leverage Splunk to analyze a complete record of data from all company machines to check for an internal control breach. In performing this task, the auditor might look for key performance indicators such as a large budget variance in certain areas. Splunk would leverage data machine data from sources such as mobile phones and computers to let the auditor know if one employee of her client was frequently performing questionable tasks that caused this budget variance.

Splunk could also help auditors by condensing data into one uniform format, increasing the efficiency of the audit. Auditors' request different data pieces from their clients, which takes time to retrieve. Splunk can reduce the time it takes to perform a traditional audit by providing auditors and clients with real-time updates regarding transactions and visualizations for those transactions. An auditor could leverage the information provided by Splunk to more quickly gather and more accurately analyze data such as the time, amount, and frequency of certain transactions to not only add value to the client, but to the accounting firm itself.

Auditors could use Splunk not only to make the audit more efficient, but to make the audit more effective. Splunk can allow associates to perform a more in-depth audit. With Splunk, data is more accessible, so instead of performing the bare minimum required for an audit, auditors can go above and beyond what has typically been required of them. For example, by using the information that Splunk has provided about transaction frequency, auditors can gain a real-time update on accounts payable and accounts receivable, ensuring fewer material misstatements on the balance sheet. Additionally, auditors could leverage information provided by Splunk to ensure claims that companies make about their practices or products. For example, if a company claims that its product is made in the United States, auditors can access machine data to monitor in real-time the company's practices and transactions at every point in the supply chain to ensure stakeholders that a product is, in fact, made in the United States.

b. Tax Planning

The goal of tax planning is to legally reduce a company's tax liability. Splunk could be of assistance in this field through its utilization of real-time data to help clients identify patterns and make proactive, rather than reactive decisions. Splunk can help tax accountants legally manipulate their client's income. Through Splunk, tax accountants will have access to not only more data, but more recent data regarding transactions. Accountants can use this data to identify

patterns and more accurately predict income for future periods. If a tax accountant uses his insights gained through Splunk to determine that income will likely fall in the coming periods, he can attempt to defer some of this period's income to the coming periods in order to avoid a large tax burden this period.

Splunk can be useful in tax planning because it can give accountants more insight into businesses and industry. By leveraging data such as frequency of employee travel and transactions that occurred during travel, accountants can be more insightful tax planners by analyzing how this international travel is affecting the organization's permanent establishment exposure. If a company is sending many employees overseas frequently, the organization may be paying more in taxes due to expenses and regulations than necessary. The ability to easily access and understand this data can help tax accountants be more efficient and make more insightful decisions regarding international travel.

By analyzing past data through Splunk, tax planners will be able to better project the future, providing the tax planning sector with useful foresight. Accountants can use the past data regarding company transactions to better understand the business environment and tax trends during that time. After that, accountants can apply this information to the current business environment, using this information to predict tax trends, which could save a company a great deal of money that would have otherwise gone to the government. This access to past data and utilization of trends to add foresight to decision-making could greatly benefit the tax planning sector of accounting.

c. Financial Statement Analysis / Valuation / Advisory

Splunk gives accountants access to big data in a way that they can understand and use. This previously untapped data could lead to much more proficient financial advisory. For example, an accountant in the advisory sector could use information gathered by Splunk to notice

and identify trends in customer preferences for a client. If the accountant sees that customers' preferences are subtly shifting, he or she can identify this trend in real-time to advise his or her client to make changes now, rather than waiting until the shift in customer preferences is apparent, when it might be too late for an organization to change directions. For instance, if an accountant notices that more individuals are beginning to prefer Apple Pay over a debit card, but one of its clients does not offer an option to pay with Apple Pay, the firm could let its clients know so that the client could make appropriate adjustments.

Another scenario in which Splunk might be helpful in financial statement analysis or advisory is if a company is having trouble comprehending why a business decision was unsuccessful. For example, if a company's expansion into Europe results in a loss, accountants can leverage transaction and customer preference data in that region through Splunk to better understand the exact cause of the failure. Through Splunk, accountants can sift through previously unavailable or complicated data. This new data exposure will allow them to analyze trends in customer preference in that area as well as employee behavior patterns to identify the source of the problem in the new region.

Splunk can also be of use in financial statement analysis and advisory by allowing advisors to make more accurate predictions about future economic and business trends. Through the access to real-time data that Splunk provides, accountants can more quickly identify subtle trends that would have previously been undetected. For example, if an accounting firm's client is a wine producer, a firm might monitor the data gathered through Splunk to identify trends in the wine market. Maybe, for instance, the younger population is beginning to prefer red wine. Splunk would allow advisors to identify subtle, real-time indicators of this trend, so that their client could get on the front-end of the new trend, adding value for the client.

4. Write a few paragraphs to your future public accounting partner explaining why your team should invest in the acquisition of and training in this tool. Explain how the tool will impact the staffing and scope of your future engagements.

Our team should consider investing in the acquisition of and training in Splunk technologies. Splunk monitors machine data, valuable information for companies, to provide organizations with real-time information that is useful in decision-making. Not only will it allow our team to be more efficient in almost every task performed, but it will position our firm as one of the industry's leaders in technology and innovation. Splunk will allow our public accounting team to make more insightful decisions and more accurate predictions while enabling easier detection of fraud, adding value for both our team and our clients.

The acquisition of and training in Splunk technologies would enable our public accounting team to make more insightful decisions regarding audit, tax, and financial statement analysis. Splunk can aggregate machine data in a way that will provide our team with more understandable information regarding transactions and customer behavior. This information will facilitate more insightful decision-making by our team. For example, members of our team will have access to information regarding employee and customer behavior that was previously too tedious and time-consuming to analyze and comprehend. Our team members can then leverage this information to draw more relevant, up-to-date conclusions about our clients' industries, enabling our team to make predictions about future economic and business decisions to give our clients sound advice in the tax planning and advisory sectors of the company.

In a profession that hangs its hat on morality, ethics, and trust, the utilization of Splunk technologies would make fraud within our team more easily and quickly identifiable. A breach in our team's internal controls could be detrimental, and with the rapid pace of technological advancement in the workforce comes more opportunity for fraud. Our business applications and

systems generate huge amounts of unstructured machine data and log files. Splunk can monitor and aggregate this unstructured data in real-time to help more efficiently identify fraudulent behavior. If an administrator suspects that fraudulent activity is taking place, he or she will more easily be able to search for it within the Splunk system to understand exactly the scope and magnitude of the events taking place.

If Splunk was implemented within our team, team members would be able to spend less time extracting data pieces from tedious documents and more time analyzing information and trends to make important decisions for the company. This shift would allow our team to add more value to the company, rather than frequently performing mindless, yet necessary work. Through the implementation of Splunk, our team's future engagements might require fewer people, expanding the reach and improving the effectiveness of the company. Splunk could leverage valuable data to provide great assistance to our team and our clients, and our team should consider investing in this useful tool.

Chapter 7: Rite Aid Corporation

Introduction

The goal of this case study is to provide students with a more thorough understanding of the long-term liabilities section of the balance sheet through analysis of financial statements and the notes to the financial statements. Students were tasked with defining and explaining critical terms on the long-term liabilities section of the balance sheet and taking a step further than what is commonly asked in accounting classes to analyze not just how to compute the numbers that appear in this section of the financial statements, but why these numbers appear where they do and the implications of seemingly small choices made by preparers of financial statements. Critical thinking and the use of logical relationships among accounts are essential in order for students to complete this case study.

From this case study, I gained a more thorough understanding of the long-term liabilities section of the balance sheet, specifically notes payable. I now have a more concrete understanding of ways to compute the carrying value of a note, interest expense, and discounts on notes payable. I also gained a more complete understanding of the different effects that using the effective-interest method and straight-line method to compute the amortization of a discount have on interest expense and the carrying value of notes. Before completing this case study, I understood how to prepare amortization tables and find interest expense, but I never analyzed those tables to understand the underlying effects that different amortization methods could have on the financial statements. Additionally, I learned from this case study how to compute an effective rate of interest, which is something I have not yet learned in my accounting classes.

This case study will be beneficial to my future career as an auditor because it gave me tools to help me think critically to analyze why the numbers on financial statements appear the way they do. An auditor must be able to make logical connections between accounts within the financial statements, and this case forced me to do so. Additionally, this case study will be beneficial to me as I am preparing for my upcoming Intermediate Accounting test. I now have a more thorough understanding of why long-term liabilities behave the way they do, rather than simply memorizing how to compute numbers and format journal entries.

a. Consider the various types of debt described in note 11, Indebtedness and Credit Agreement.

    i. Explain the difference between Rite Aid's secured and unsecured debt. Why does Rite Aid distinguish between these two types of debt?

Rite Aid's secured debt is backed by some sort of collateral. For instance, if Rite Aid does not repay its secured loan obligations, the creditor has the right to claim a portion of Rite Aid's assets. The company's unsecured debt is not backed by collateral. If Rite-Aid does not meet its obligations to its creditors, the creditors will likely be forced to file a lawsuit in order to recover their assets. These two types of debt are different because secured debt is usually less risky for the creditor because, unlike unsecured debt, it provides some sort of assurance that the creditor will be repaid. Rite Aid distinguished between these two types of debt because full disclosure as to liens on assets is needed to give investors and creditors a more complete understanding of the company's financial position. For instance, a creditor would like to know the amount of secured and unsecured debt that Rite Aid has to make assumptions about the solvency of the company and determine whether Rite Aid would be able to repay its loans. If a creditor is considering giving Rite Aid an unsecured loan, that creditor may want to take into account Rite

Aid's secured amount of debt because if Rite Aid goes bankrupt, the creditor providing a secured loan is more likely to recover its assets than the creditor providing an unsecured loan.

ii. What does it mean for debt to be "guaranteed"? According to note 11, who has provided the guarantee for some of Rite Aid's unsecured debt?

When debt is "guaranteed," a third-party (not the debtor or creditor) has agreed to fulfill the obligations of the debt agreement if the debtor defaults. The guaranteed debt, unlike secured debt, is not backed by Rite Aid's assets, but rather the promise of a third party to repay the loan if Rite Aid cannot fulfill its obligations. According to note 11, Rite Aid's wholly owned subsidiaries have provided the guarantee for some of Rite Aid's unsecured debt. However, the indentures that govern Rite Aid's guaranteed unsecured debt contain restrictions on the amount of additional debt that the company can incur.

iii. What is meant by the terms "senior," "fixed-rate," and "convertible"?

Senior debt takes priority over other forms of debt. Senior debt is usually a secured form of debt and tends to be less risky for creditors than other forms of debt. If Rite Aid goes bankrupt, it is most likely to pay its senior debtholders before any other debtholders. Fixed-rate loans hold the interest rate constant through the entirety of the loan or a specified portion of the loan's life. Fixed interest rates do not fluctuate along with the rates in the market, meaning fixed-rate loans tend to be more attractive to borrowers because they provide borrowers with a sense of certainty and predictability. Convertible securities allow debtholders to convert their securities into common stock at a specified price. If a holder of a convertible note prefers to have equity, rather than debt, he or she may exchange his or her ownership of debt for an ownership share in the company itself.

iv. Speculate as to why Rite Aid has many different types of debt with a range of interest rates.

Rite Aid likely has many different types of debt with a range of interest rates due to market fluctuation over time, creditor preferences, and Rite Aid's varying need for short-term liquidity. Rite Aid borrows money at different points in time, and each year, there is likely some variation in market interest rates. This variation affects the stated rate of the loan. Additionally, different creditors value different credit terms. Some may value a more risky loan with the potential for a higher return, so these creditors may offer a riskier loan at a higher interest rate than creditors who value a safe, predictable return. Finally, Rite Aid may have a stronger demand for cash at certain times. When the company has a strong need for short-term liquidity, it may be willing to accept credit terms with a higher interest rates.

b. Consider note 11, Indebtedness and Credit Agreement. How much total debt does Rite Aid have at February 27, 2010? How much of this is due within the coming fiscal year? Reconcile the total debt reported in note 11 with what Rite Aid reports on its balance sheet.

At February 27, 2010, Rite Aid has $6,370,899,000 in total debt. One can arrive at this number by combining the following from Rite Aid's balance sheet (in thousands):

Current maturities of long-term debt and lease financing obligations	$51,502
Long-term debt, less current maturities	6,185,633
Lease financing obligations, less current maturities	133,176
Total Debt	$6,370,899

To arrive at this total, one must pull specific numbers associated with the company's total debt rather than simply pulling the number for total liabilities because not all liabilities represent long-term debt. One can reconcile this total debt that Rite Aid reports on its balance sheet by examining note 11 of the financial statements, which is a summary of indebtedness and lease financing obligations. Towards the bottom of this summary, the line item that reads "total debt" reports this amount as $6,370,899,000, which equals the total debt obtained from analysis of the balance sheet.

c. Consider the 7.5% senior secured notes due March 2017.

i. What is the face value (i.e. the principal) of these notes? How do you know?

The face value of these notes is $500,000,000. The carrying value does not change between 2009 and 2010, and there is no unamortized discount mentioned along with the note payable, so the note must have been issued at par of $500,000,000.

ii. Prepare the journal entry that Rite Aid must have made when these notes were issued.

When these notes were issued, Rite Aid received cash and took on the obligation to repay its creditors. Rite Aid must have made the following entry:

Cash	500,000,000 DR	
Notes payable		500,000,000 CR

Because the note was issued at par, no discount or premium is associated with the entry. This transaction increases assets and liabilities. There is no effect on net income.

iii. Prepare the annual interest expense journal entry. Note that the interest paid on a note during the year equals the face value of the note times the stated rate (i.e., coupon rate) of the note.

The face value of the note is $500,000,000. The stated rate of interest is 7.5%. To accrue interest, the following entry is made each year:

Interest expense	37,500,000 DR	
	Interest payable or cash	37,500,000 CR

This transaction decreases net income and either increases liabilities or decreases total assets, depending on whether the credit goes to interest payable or cash.

iv. Prepare the journal entry that Rite Aid will make when these notes mature in 2017.

When these notes mature in 2017, Rite Aid will repay the full value of the note, removing the note payable from its books. The company will make the following entry:

Notes Payable	500,000,000 DR	
	Cash	500,000,000 CR

This entry will decrease liabilities and assets. There is no effect on net income.

d. Consider the 9.375% senior notes due December 2015. Assume that interest is paid annually.

i. What is the face value (or principal) of these notes? What is the carrying value (net book value) of these notes at February 27, 2010? Why do the two values differ?

As noted beside the line item, the face value of the 9.375% senior notes due December 2015 is $410,000,000. The carrying value of these notes at February 27, 2010 is $405,951,000. These two values are different because the notes were issued at a discount. These notes were issued at a discount because the stated rate on the notes was different than the market rate at the time. Therefore, because Rite Aid is paying a lower stated rate of interest (rent) on these notes than the market rate at the time of issuance, Rite Aid received less cash than the $410,000,000 face value at the time of issuance. Throughout the life of the notes, Rite Aid will amortize the discount so that the carrying value of the notes will eventually equal the face value.

ii. How much interest did Rite Aid pay on these notes during the fiscal 2009?

During fiscal 2009, Rite Aid paid $38,438,000 in interest on these notes. One can arrive at this figure by multiplying the face value of the note by the stated interest rate.

iii. Determine the total amount of interest expense recorded by Rite Aid on these notes for the year ended February 27, 2010. Note that there is a cash and a noncash portion to interest expense on these notes because they were issued at a discount. The noncash portion of interest expense is the amortization of the discount during the year (that is, the amount by which the discount decreased during the year).

The total amount of interest expense recorded by Rite Aid on these notes for the year ended February 27, 2010 is $39,143,000. One can arrive at this amount by building the entry that would have been made to record interest expense. We know that the company paid $38,438,000

cash, a credit to the cash account. This amount represents the cash portion of interest expense. We also know that Rite Aid must have amortized some portion of the discount on notes payable. The unamortized discount on these notes decreased from $4,754,000 to $4,049,000, so a credit to the discount on notes payable account must have been made in the amount of $705,000. This amount represents the noncash portion of interest expense. The remaining debit entry, interest expense, is a plug, at $39,143,000.

iv. Prepare the journal entry to record interest expense on these notes for fiscal 2009. Consider both the cash and discount (noncash) portions of the interest expense from part iii above.

As explained above, the journal entry to record interest expense for fiscal 2009 would have been the following:

Interest expense	39,143,000 DR	
Discount on notes payable		705,000 CR
Cash		38,438,000 CR

This entry decreases net income and assets while increasing liabilities.

v. Compute the total rate of interest recorded for fiscal 2009 on these notes.

To find the total rate of interest recorded for fiscal 2009 on these notes, one can divide the interest expense by the carrying value of the notes at the beginning of the period. The interest expense is $39,143,000, and the carrying value of the notes at the beginning of the period is shown in note 11 as $405,246,000. $39,143,000 divided by $405,246,000 equals 9.659%, the effective interest rate of the notes.

e. Consider the 9.75% notes due June 2016. Assume that Rite Aid issued these notes on June 30, 2009 and that the company pays interest on June 30th of each year.

i. According to note 11, the proceeds of the notes at the time of issue were 98.2% of the face value of the notes. Prepare the journal entry that Rite Aid must have made when these notes were issued.

Because the proceeds at the time of issue were 98.2% of the face value of the notes, the notes must have sold at a discount. 98.2% of $410,000,000 is $402,620,000, so the company received $402,620,000 cash proceeds from the notes. Discount on notes payable is a plug between the credit to the notes payable account for the face value of the notes and the debit to the cash account for the cash proceeds. The discount on notes payable will be amortized over time. When these notes were issued, Rite Aid must have made the following entry:

Cash	402,620,000 DR	
Discount on notes payable	7,380,000 DR	
Notes Payable		410,000,000 CR

This entry increases assets and liabilities. There is no effect on net income.

ii. At what effective annual rate of interest were these notes issued?

To find the effective annual rate of interest at the date of note issuance, we can start by finding the annual cash interest payment. The face value of $410,000,000 multiplied by the stated rate of 9.75% equals $39,975,000, which represents the annual cash interest payment. Now, to find the effective interest rate, instead of using complicated mathematics and breaking down the present value formula for a lump sum, we can use Microsoft Excel as a tool to find the interest rate. We do this by entering the following into a cell:

=RATE(7,-39975,402620,-410000)

We use seven because there are seven periods between 2009 and 2016. Next we plug the cash interest payment, cash proceeds, and face value of the note into the formula. After entering the formula onto Excel, we can see that the effective interest rate on these notes is 10.1212%.

iii. Assume that Rite Aid uses the effective interest rate method to account for this debt. Use the table that follows to prepare an amortization schedule for these notes. Use the last column to verify that each year's interest expense reflects the same interest rate even though the expense. Note: Guidance follows the table.

All amounts on table are shown in thousands.

Table 11: Effective Interest Amortization Schedule

Date	Interest Payment	Interest Expense	Bond Discount Amortization	Net Book Value of Debt	Effective Interest Rate
30-Jun-09				402,620	10.12%
30-Jun-10	39975	40749.98	774.97544	403,395	10.12%
30-Jun-11	39975	40828.41	853.4122542	404,248	10.12%
30-Jun-12	39975	40914.79	939.7878153	405,188	10.12%
30-Jun-13	39975	41009.91	1034.90562	406,223	10.12%
30-Jun-14	39975	41114.65	1139.650487	407,363	10.12%
30-Jun-15	39975	41230	1254.996792	408,618	10.12%
30-Jun-16	39975	41357.02	1382.017528	410,000	10.12%

- June 30, 2009 Net Book Value of Debt is the initial proceeds of the bond issuance, net of costs. The face value of this debt is $410,000; the discount is $7,380; the coupon rate is 9.75% and the effective rate (including fees) is 10.1212%.
- Interest Payment is the face value of the bond times the coupon rate of the bond.

- Interest Expense equals opening book value of the debt times the effective interest rate.
    - The difference between the interest payment and interest expense is the amortization of the bond discount. This is equivalent to saying that interest expense equals the interest paid plus the amortization of the bond discount.
    - Amortizing the discount increases the net book value of the bond each year.

iv. Based on the above information, prepare the journal entry that Rite Aid would have recorded February 27, 2010, to accrue interest expense on these notes.

To find the interest expense for February 27, 2010, one would need to multiply the carrying value of the note at the beginning of the period by the interest rate, and then multiply that number by the number of periods. Because we are trying to find the amount of interest that has accrued between the end of June 2009 and the beginning of February 2010, we know that only eight out of twelve months of the period have passed. $402,620,000 multiplied by an interest rate of 10.1212% multiplied by eight out of twelve periods yields $27,167,000, the amount for which we would debit interest expense. Since the company only pays cash on June 30, the company would credit the interest payable account for eight-twelfths of the amount which they pay in cash ($39,975,000) as interest each year, so Rite Aid would debit the interest payable account for $26,650,000. The discount on notes payable account is the plug to this entry, a credit of $517,000,000. The entry is as follows:

Interest expense	27,167,000	
Discount on notes payable		517,000
Cash		26,650,000

This transaction decreases net income and assets while increasing liabilities.

v. Based on your answer to part *iv*., what would be the net book value of the notes at February 27, 2010?

At February 27, 2010, the net book value of these notes would be the carrying value of the note at the beginning of the period, $402,620,000, plus any discount that was amortized during the period, which is $517,000. This yields a net book value of the notes of $403,127,000 at February 27, 2010.

vi. Your answer to part v. will be different from the amount that Rite Aid reported because the company used the straight-line method to amortize the discount on these notes instead of the effective interest rate method. Complete the following table using the straight-line method to amortize the bond discount. Use the last column in the table to record the interest rate each year. Under this method, does Rite Aid report the same interest rate on these notes each year? Note: Guidance follows the table.

All amounts on table are shown in thousands.

Table 12: Straight-Line Interest Amortization Schedule

Date	Interest Payment	Interest Expense	Bond Discount Amortization	Net Book Value of Debt	Straight-Line Interest Rate
30-Jun-09				402,620	
30-Jun-10	39975	41029	1054	403,674	10.19%
30-Jun-11	39975	41029	1054	404,728	10.16%
30-Jun-12	39975	41029	1054	405,782	10.14%
30-Jun-13	39975	41029	1054	406,836	10.11%
30-Jun-14	39975	41029	1054	407,890	10.08%
30-Jun-15	39975	41029	1054	408,944	10.06%
30-Jun-16	39975	41029	1054	409,998	10.03%

- June 30, 2009 Net Book Value of Debt is the initial proceeds of the bond issuance, net of costs. The face value of this debt is $410,000; the discount is $7,380; the coupon rate is 9.75% and the effective rate (including fees) is 10.1212%.
- Interest Payment is the face value of the bond times the coupon rate of the bond.
- Interest Expense is the interest payment, above, plus the amortization of the bond discount.
    - Under the straight-line method the bond discount is amortized on a straight-line basis over the life of the bond. That is, amortization is the same amount each year.
    - Amortizing the discount increases the net book value of the bond each year.

Rite Aid does not report the same interest rate on these notes each year. Each year, the interest rate on the notes gets slightly smaller because while interest expense is being held constant due to consistent cash payments and equal amortization amounts each period, the net book value of the debt is increasing each year. This results in a smaller interest rate each year.

vii. Compare the year-by-year difference in interest expense derived from each method. What pattern do you observe? Is the difference material in any year?

Under the straight-line interest method, the interest expense holds constant at $41,029,000. Under the effective interest rate, however, the carrying value of the note, and therefore the interest expense, increases each year. The largest difference among interest rates in comparing the methods is in the year 2010, in which the interest expense under the effective-interest method is $279,000 less than it is under the straight-line method. Therefore, under the effective-interest method, net income is $279,000 more than it is under the straight-line method in the year of 2010. Additionally, assets are greater in 2010 under the effective interest method than under the straight-line method. For a large corporation such as Rite Aid, this amount is likely not material; however, to

ensure more accurate financial reporting, it would have been more beneficial to shareholders' understandings of the company's financial position if Rite Aid had used the effective-interest method of amortization.

Chapter 8: Merck & Company, Incorporated

Introduction

The goal of this case study is to familiarize students with the stockholders' equity section of the balance sheet and the connections between this section of the balance sheet with other pieces of the financial statements. Students were asked to define and analyze components of stockholders' equity and demonstrate the effects of dividend payments and the purchase of treasury stock on stockholders' equity.

This case study provided me with a more thorough understanding of stockholders' equity. Specifically, I learned from this case that treasury stock represents the difference between shares issued and shares outstanding. I now have a deeper understanding of the relationship between treasury stock, common stock, and even stock price. I also have a more thorough understanding of the effects of dividend payments on stock prices after completing this case study. Before this case study, I did not know how to calculate total market capitalization, so I have gained another helpful tool to use in the future.

This case study will be beneficial to my future career as an auditor because it has enhanced my ability to draw connections between portions of the financial statements. An auditor must be able to form logical connections between common stock, treasury stock, and stockholders' equity, and this case study has helped me to do so. Additionally, this case study has enhanced my understanding of the financial markets and the effects of dividend payments on stock prices and thus market capitalization. This knowledge will not only be beneficial in my future career, but it will be helpful to me in considering the companies in which to invest once I have a steady income.

a. Consider Merck's common shares.

i. How many common shares is Merck authorized to issue?

According to the balance sheet, Merck is authorized to issue 5,400,000,000 common shares.

ii. How many common shares has Merck actually issued at December 31, 2007?

According to the balance sheet, at December 31, 2007, Merck has actually issued 2,983,508,675 shares.

iii. Reconcile the number of shares issued at December 31, 2007, to the dollar value of common stock reported on the balance sheet.

As mentioned above, Merck has 2,983,508,676 shares issued at one cent par value. The company's balance sheet states that the value of Merck's common stock is $29.8 million. 2,983,508,767 shares at one cent par value yields $29.8 million in common stock.

iv. How many common shares are held in treasury at December 31, 2007?

At December 31, 2007, the balance sheet states that 811,005,791 shares are held in treasury.

v. How many common shares are outstanding at December 31, 2007**?**

Treasury stock represents the difference between issued and outstanding shares. 2,983,508,676 shares are issued, and 811,005,791 shares are held in treasury stock. Therefore, 3,794,514,467 shares are outstanding at December 31, 2007.

vi. At December 31, 2007, Merck's stock price closed at $57.61 per share. Calculate the total market capitalization of Merck on that day.

One can arrive at the total market capitalization of a company by multiplying the number of shares outstanding by the market price per share. At December 31, 2007, the company has 3,794,514,467 shares outstanding at a market price of $57.61 per share. Therefore, Merck's total market capitalization is $218.34 billion.

b. SKIP

c. Why do companies pay dividends on their common or ordinary shares? What normally happens to a company's share price when dividends are paid?

Dividends are paid from retained earnings, and generally, only profitable companies can afford to pay dividends. To shareholders, dividends tend to be an indication of the success of a company**.** When companies pay dividends, investors tend to perceive these companies as financially stable, making the companies more attractive to investors. This attractiveness causes more and more investors to buy into the companies, causing their stock prices to go up. Therefore, companies' share prices usually go up when dividends are paid.

d. In general, why do companies repurchase their own shares?

Corporations purchase their outstanding stock for several reasons. One reason might be to provide tax-efficient distributions of excess cash to shareholders because tax rates on capital gains tend to be lower than tax rates on dividends. Another reason might be to increase earnings per share or return on equity by reducing both shares outstanding and stockholders' equity. Companies might also repurchase their own shares to provide stock for employee stock compensation contracts or to meet potential merger needs. Another reason companies might repurchase their own stock to thwart takeover attempts or to reduce the number of stockholders. Additionally, companies might repurchase their own shares to make a market in the stock; by creating demand, companies hope to drive stock prices up.

e. Consider Merck's statement of cash flow and statement of retained earnings. Prepare a single journal entry that summarizes Merck's common dividend activity for 2007.

To summarize Merck's common dividend activity for 2007, the entry would be (in millions):

Retained earnings	3310.7 DR	
Dividends payable		3.4 CR
Cash		3307.3 CR

f. SKIP

g. Describe the method Merck uses to account for its treasury stock transactions.

i. Describe the method Merck used to account for its treasury stock transactions.

Merck uses the cost method to account for its treasury stock transactions. When Merck buys back its own shares, it records the shares at the cost for which they were purchased. When the company sells treasure stock shares, it credits the treasury stock account for the amount for which the respective shares were purchased.

ii. Refer to note 11 to Merck's financial statements. How many shares did Merck repurchase on the open market during 2007?

According to the table in note 11, Merck repurchased 26.5 million shares on the open market during 2007.

iii. How much did Merck pay, in total and per share, on average, to buy back its stock during 2007? What type of cash flow does this represent?

In total, Merck paid $1,429.7 million to buy back its stock during 2007. This number can be found on the company's statement of cash flows in the line item that reads "Purchase of treasure stock." On average, the company paid $53.95 ($1,429.7 million divided by 26.5 million shares) per share of treasury stock during 2007.

iv. Why doesn't Merck disclose its treasury stock as an asset?

According to GAAP and the basic principles of accounting, treasury stock can never be disclosed as an asset. The FASB defines an asset (working definition) as "a present economic resource to which the entity has a right or other access that others do not have." Treasury stock is not an economic resource, but a reduction of common equity. Therefore, treasure stock is not an asset. Because the company is buying back common shares, treasury stock is a contra equity account.

h. SKIP

i. Determine the missing amounts and calculate the ratios in the tables below. For comparability, use dividends paid for both companies rather than dividends declared. Use the number of shares outstanding at year end for per-share calculations. What differences do you observe in Merck's dividend-related ratios across the two years?

Table 13: Merck and Company Key Performance Indicators

	Merck ($)	
(*$ in millions)*	**2007**	**2006**
Dividends paid	$3,307.3	3,322.6
Shares outstanding	3,794,514,467	3,784,661,229
Net income	$3,275.4	$4,433.8
Total assets	$48,350.7	$44,569.8
Operating cash flows	$6,999.2	$6,765.2
Year-end stock price	$57.61	$41.94

Table 14: Dividend Ratios

	Merck ($)	
	2007	**2006**
Dividends per share	$0.87	$0.88
Dividend yield (dividends per share to stock price)	1.51%	2.10%
Dividend payout (dividends to net income)	101.97%	74.55%
Dividends to total assets	6.84%	7.45%
Dividends to operating cash flows	47.25%	49.11%

Across the two years, Merck's dividend-related ratios remain fairly similar. Dividend yield is slightly lower for 2007 because the stock price went up during that year. The dividend payout in 2007 went up significantly, by about 27%. This is due to consistent dividend payment even when the company was experiencing a decline in net income. The dividend payout ratio in 2007 is alarming because the company paid more in dividends than it made in income, meaning that it had to pull from retained earnings to pay dividends to stockholders. Dividends to total

assets is lower for 2007 because the company acquired more assets. Through examination of the balance sheet, it seems that Merck acquired more fixed assets such as buildings and machinery. Inventory and accounts receivable also went up, increasing total assets. Dividends to operating cash flows is slightly lower in 2007 because the company paid fewer dividends and saw an increase in operating cash flows.

Chapter 9: Taxodux—Playing the Global Tax Avoidance Game

This video, titled "Taxodus – Playing the Global Tax Avoidance Game," was informative and interesting. Before watching the video, I had heard arguments that large corporations and extremely wealthy individuals pay very low tax rates, but because the tax rate on corporations in the United States is so high, I never fully understood the basis of this argument. After watching the video, however, I learned that corporations avoid paying taxes on their earnings by funneling their money through tax havens, or countries that are "tax neutral" with effective tax rates of zero percent. It is because of this reason that companies like Apple and Starbucks actually pay tax rates that are equivalent to between one and two percent of earnings. I found the fact the Big Four accounting firms are the primary facilitators of this tax avoidance to be very interesting, but not surprising. I knew before watching the video that the Big Four firms were influential, but I did not realize the extent of these firms' abilities or the effects that the decisions made by Big Four accountants have on taxpayers, corporations, and governments until watching the video. After watching this video, tax accounting seems much more appealing to me. This video taught me that tax accounting is full of problem-solving and strategic organization. Watching this video has sparked my interest in tax accounting, and I think that the tax branch of public accounting could be an exciting and challenging environment in which to work.

However controversial my opinion may be, I believe that as long as corporations are following the law, any tax avoidance that takes place is perfectly ethical. As one of the speakers in the video mentioned, every corporation has the same opportunities to avoid paying taxes—some are just better at doing so than others. As harsh as this statement may sound, I believe that the lawmakers, not the corporations, are at fault for this tax avoidance. If lawmakers want corporations to pay more in taxes, then they should create laws that facilitate these tax payments,

rather than targeting corporations who are simply trying to increase their bottom lines. One speaker in the video mentioned that companies are morally bound to give back to the communities in which they operate. I do not agree with this statement. I believe that corporations are bound to follow the law and to increase their bottom lines. Anything else is the lawmakers' problem. If this increase in the bottom line can be facilitated by giving money or services back to the community, then the company should take these actions. If giving to the community, however, will not increase the bottom line, then the company should not give unless it is legally bound to do so. The goal of corporations is to facilitate shareholder wealth, not to maximize tax payments. In other words, these organizations are driven by profit, not charity. As long as companies do not technically break any laws, they should not be faulted for minimizing their tax rates. I did find it interesting, however, when the video mentioned that less than one percent of the population controls about ninety-five percent of the wealth overseas. Although this statement may seem alarming, I do not think that unequal wealth distribution is a problem. Poverty is a problem, but unequal wealth distribution does not necessitate poverty. Corporations like Apple and Starbucks provide individuals with jobs, which, in my opinion, facilitates economic growth and can reduce poverty. Large corporations are also paying taxes on the wages that they pay their workers. If lawmakers have a problem with the way companies and channeling their funds, they should actually make laws that prevent this activity or launch investigations as to whether this activity is illegal, rather than bickering about how to solve issues and complaining about how corporations are paying too little in taxes. Lawmakers should consider the money that their pointless, tedious, ego-driven arguments waste before targeting corporations that are actively and legally working to increase their bottom lines.

Chapter 10: State Street Corporation—Marketable Securities

Introduction

The goal of this case study is to familiarize students with investment securities and the effects that these securities have on net income, comprehensive income, and various balance sheet accounts. Students were tasked with defining and explaining the differences between different types of securities such as trading, held-to-maturity, and available-for-sale while taking into account management's intent for the securities and the technical accounting side of valuing the securities. Not only were students asked to define and describe various securities, but students were tasked with diving deeper into the financial statements and the notes to the financial statements to understand the effects of realized versus unrealized holding gains and losses on various securities and the ways in which security classification effects net income, comprehensive income, and stockholders' equity. Critical thinking and understanding how and why certain entries regarding securities are made are essential in order for students to complete this case study.

From this case study, I gained a more thorough understanding of investment security accounts. More specifically, I was able to form a more thorough understanding of how unrealized versus realized holding gains and losses play into security valuation and identification of original cost of a security. I also gained a more complete understanding of the different effects that classifying a security as available-for-sale, held-to-maturity, or trading can have on net income and comprehensive income. Before completing this case study, I was able to make entries regarding debt and equity securities and describe how these entries flowed into the financial statements, but this case study challenged me to work backwards' for example, I had to analyze

the financial statements and the notes to the financial statements to identify the entries that the company would have made when certain transactions occurred.

This case study will be beneficial to me in my future career as an auditor because it gave me tools to help me think critically to analyze how the numbers on the financial statements are affected by each journal entry regarding securities, specifically realized and unrealized holding gains and losses. As an auditor, I will be tasked with not only thinking about which journal entries to make in certain situations, but I will need to be able to work backwards to identify entries made by companies. This case study provided me with good practice for this future skill. Additionally, this case study will help me prepare for my Accy 304 final exam, as this topic will be presented on that test.

a. Consider trading securities. Note that financial institutions such as State Street typically call these securities "Trading account assets."

    i. In general, what are trading securities?

Trading securities can be debt or equity securities. Trading securities are distinct from other securities because management purchases them with the intent of selling them within a short period of time, which is generally about three months. Trading securities are typically classified as current assets.

    ii. How would a company record $1 of dividends or interest received from trading securities?

The company would make the following entry:

Cash	1 DR	
Dividend or interest revenue		1 CR

iii. If the market value of trading securities increased by $1 during the reporting period, what journal entry would the company record?

The company would make the following entry:

Fair value adjustment – trading securities	1 DR
Unrealized holding gain or loss – income	1 CR

Unlike available-for-sale securities, any unrealized holding gain or loss incurred during the reporting period flows into the income statement when dealing with trading securities.

b. Consider securities available-for-sale. Note that State Street calls these, "Investment securities available for sale."

i. In general, what are securities available-for-sale?

Available-for-sale securities are a category management uses when they are unsure of whether they would like to classify securities as trading or held-to-maturity. Available-for sale debt securities amortized each reporting period and adjusted to fair value. Any unrealized holding gain or loss from available-for-sale securities flows directly into the statement of comprehensive income, and therefore the equity section of the balance sheet.

ii. How would a company record $1 of dividends or interest received from securities available-for-sale?

A company would make the following entry:

Cash	1 DR
Interest or dividend revenue	1 CR

iii. If the market value of securities available-for-sale increased by $1 during the reporting period, what journal entry would the company record?

The company would make the following entry:

Fair value adjustment – available-for-sale securities	1 DR
Unrealized holding gain or loss – equity	1 CR

As mentioned earlier, unrealized holding gains and losses from available-for-sale securities do not flow into the income statement, but rather the statement of comprehensive income and therefore shareholder's equity.

c. Consider securities held-to-maturity. Note that State Street calls these, "Investment securities held to maturity."

i. In general, what are these securities? Why are equity securities never classified as held-to maturity?

Held-to-maturity securities are purchased by management with the intention of holding them until their maturity dates. These securities are recorded at amortized cost and, unlike trading and available-for-sale securities, are not adjusted to fair value. Held-to-maturity securities can never be classified as equity securities because equity securities do not have maturity dates. Therefore, held-to-maturity securities can only be debt securities.

ii. If the market value of securities held-to-maturity increased by $1 during the reporting period, what journal entry would the company record?

If the market value of securities held-to-maturity increased by $1 during the reporting period, the company would record no entry because held-to-maturity securities are valued at amortized cost, not fair value.

d. Consider the "Trading account assets" on State Street's balance sheet.

   i. What is the balance in this account on December 31, 2012? What is the market value of these securities on that date?

The balance in the "Trading account assets" account is (in millions) $637, which is also the market value of these securities on that date because the securities are presented at fair value.

   ii. Assume that the 2012 unadjusted trial balance for trading account assets was $552 million. What adjusting journal entry would State Street make to adjust this account to market value? Ignore any income tax effects for this part.

To adjust this account to market value, State Street would make the following entry:

Fair value adjustment – trading	85 DR	
Unrealized holding gain or loss – income		85 CR

e. Consider the balance sheet account "Investment securities held to maturity" and the related disclosures in Note 4.

   i. What is the 2012 year-end balance in this account?

The year-end balance in the "Investment securities held to maturity" account is $11,379.

   ii. What is the market value of State Street's investment securities held to maturity?

The 2012 year-end market value of State Street's investment securities held to maturity is $11,661. The 2011 year-end market value of these securities is $9,362.

iii. What is the amortized cost of these securities? What does "amortized cost" represent? How does amortized cost compare to the original cost of the securities?

The securities are shown on the balance sheet at amortized cost, so the amortized cost of these securities is $11,379. Amortized cost represents the original price paid for the securities plus or minus the amortized portion of any discount or premium involved with the purchase of those securities. If the securities sold at a premium, then the amortized cost would be less than the original cost. If the securities sold at a discount, then the amortized cost would be greater than the original cost.

iv. What does the difference between the market value and the amortized cost represent? What does the difference suggest about how the average market rate of interest on held-to-maturity securities has changed since the purchase of the securities held by State Street?

The difference between the market value and the amortized cost of the held-to-maturity securities represents the increase in value of held-to-maturity securities due to a change in market interest rates. Because the fair value of these securities has increased, market interest rates must have decreased, making the securities more valuable due to their stated rates.

f. Consider the balance sheet account "Investment securities available for sale" and the related disclosures in Note 4.

i. What is the 2012 year-end balance in this account? What does this balance represent?

The 2012 year-end balance of the "Investment securities available for sale" is $109,682. This amount represents amortized cost plus or minus any adjustments made to the fair value of the securities.

ii. What is the amount of net unrealized gains or losses on the available-for-sale securities held by State Street at December 31, 2012? Be sure to note whether the amount is a net gain or loss.

The amount of net unrealized gains or losses on the available-for-sale securities held by State Street at December 31, 2012 is $1,119. This amount is a gain. This number can be found by examining Note 4 of the financial statements and comparing the 2012 gross unrealized gains and losses for available-for-sale securities.

iii. What was the amount of net realized gains (losses) from sales of available-for-sale securities for 2012? How would this amount impact State Street's statements of income and cash flows for 2012?

The amount of net realized gains from sales of available-for-sale securities for 2012 is $55. This number can be traced to the income statement and found on the line that reads "Net gains (losses) from sales of investment securities."

g. State Street's statement of cash flow for 2012 (not included) shows the following line items in the "Investing Activities" section relating to available-for-sale securities (in millions):

Proceeds from sales of available-for-sale securities $ 5,399

Purchases of available-for-sale securities $60,812

i. Show the journal entry State Street made to record the purchase of available-for-sale securities for 2012.

To record the purchase of available-for-sale securities for 2012, State Street made the following entry:

Investment in securities – available-for-sale	60,812 DR	
Cash		60,812 CR

ii. Show the journal entry State Street made to record the sale of available-for-sale securities for 2012. Note 13 (not included) reports that the available-for-sale securities sold during 2012 had "unrealized pre-tax gains of $67 million as of December 31, 2011." Hint: be sure to remove the current book-value of these securities in your entry.

To record the sale of available-for-sale securities for 2012, State Street made the following entry:

Unrealized holding gain or loss – equity	67 DR	
Cash	5,399 DR	
Realized gain on available-for-sale securities		55 CR
Investment in available-for-sale securities		5,411 CR

The proceeds are given, and the realized gain can be found on the income statement. In order to find the cost basis of the security (investment amount credit), we need to debit the unrealized holding gain, which is also given in Note 13. Once we make these debits and credits, the credit to "Investment in available-for-sale securities" is a plug figure.

iii. Use the information in part g. ii to determine the original cost of the available-for-sale securities sold during 2012.

According to the previous entry, the original cost of the available-for-sale securities sold during 2012 is $5,411. Usually, to find the original cost, one would subtract the gain on sale of investments from the proceeds of these investments. When we do this, however, we arrive at $5,344 ($5,399 – 55). This number is incorrect because it does not take into account the unrealized holding gain on these securities. When we take this unrealized holding gain into account, we see that the original cost of these securities is $5,411.

Chapter 11: ZAGG, Inc.—Deferred Income Taxes

Introduction

The goal of this case study is to provide students with a more thorough understanding of the differences between pretax financial income and taxable income. This understanding should be used by students to facilitate analysis of deferred tax assets and deferred tax liabilities and the effects of these accounts on the financial statements. Students were tasked with defining and explaining critical terms dealing with income taxes and taking a step further than what is commonly asked in accounting classes to analyze not just how to compute the numbers that play into income tax expense, deferred tax liabilities, and deferred tax assets, but why these numbers appear where they do and the implications of these numbers on the financial statements.

From this case study, I gained a more thorough understanding of the mechanics of income taxes. Specifically, this case study challenged me to think critically about the transactions that give rise to deferred income tax assets and deferred income tax liabilities. I learned techniques that I can use to decipher the effects of transactions on income tax payable and income tax expense. For example, instead of immediately trying to determine whether a transaction increases or decreases income taxes payable, I have learned to first determine the transaction's effects on pretax financial income and taxable income. From there, I can make a more accurate decision about the effects of the transaction on income taxes payable and the resulting deferred tax asset or deferred tax liability.

This case study will be beneficial to me in my future career in a few ways. Firstly, it helped give me tools to think critically to analyze why the deferred tax assets, deferred tax liabilities, and related valuation accounts appear on the financial statements as they do. Secondly,

this case study helped me develop valuable writing skills which I will need when I have to write reports to my supervisors in my future career. Thirdly, this case study helped me to understand income taxes and their complexities. If I ever decide to exit the field of public accounting and enter a management position in industry, this knowledge will be greatly beneficial to me. Additionally, this case study helped me to prepare for my upcoming Intermediate Accounting test, as this topic will appear on the exam.

a. Describe what is meant by the term book income? Which number in ZAGG's statement of operation captures this notion for fiscal 2012? Describe how a company's book income differs from its taxable income.

Book income is a company's pretax financial income. That is, book income is the income that a company reports on its income statement after deducting cost of goods sold, operating expenses, and other gains and losses from revenue. On ZAGG's 2012 income statement, the line item that reads "Income before provision for income taxes" reports the company's book income (in thousands) as $23,898. A company's book income differs from its net income due to permanent and temporary tax differences. These differences are caused by different methods for recording pretax financial income (book income) and taxable income. Taxable income is determined on a cash basis, while book income is determined on an accrual basis. Therefore, differences between these two methods in combination with items that represent permanent differences, such as fines from the government or interest on municipal bonds, can cause book income to differ from taxable income.

b. In your own words, define the following terms:

    i. Permanent tax differences (also provide an example)

A permanent tax difference is an amount that is reported differently for book income versus taxable income. The difference in these reporting amounts will never be eliminated because, unlike temporary tax differences, they do not reverse themselves in future years. Examples of permanent tax differences include penalties and fines and interest on municipal bonds. Penalties and fines, such as a fine for producing too much pollution, are recorded as expenses for financial reporting purposes, but they are not recorded as expenses for tax reporting purposes so that they do not reduce a company's tax burden. Income from municipal bonds is reported for book income, but it should not be included in taxable income so that it does not increase a company's tax burden.

ii. Temporary tax difference (also provide an example)

A temporary tax difference is also an amount that is reported differently for book income versus taxable income, but unlike permanent tax differences, temporary tax differences will reverse themselves in future years. Temporary tax differences can result in deferred tax liabilities, which are future taxable amounts, or deferred tax assets, which are future deductible amounts. An example of a deferred tax liability would be an excess of tax depreciation over book depreciation. This difference would cause taxable income to decrease in the current year, but it would reverse in future years. An example of a deferred tax asset would be prepaid rent that the company received during the year. Because taxable income is reported on a cash basis, this difference would cause taxable income to increase in the current year, but it would reverse in future years.

iii. Statutory tax rate

The statutory tax rate is the tax rate that the government imposes on companies. The statutory tax rate is the stated rate that by law, companies are required to pay.

iv. Effective tax rate

The effective tax rate is the percentage of pretax financial income that a company actually pays in taxes. It is calculated by dividing pretax financial income by income tax expense.

c. Explain in general terms why a company reports deferred income taxes as part of their total income tax expense. Why don't companies simply report their current tax bill as their income tax expense?

ASC 740 contains four Subtopics—Overall, Intraperiod Tax Allocation, Other Considerations or Special Areas, and Interim Reporting. To explain why companies report deferred income taxes as part of their total income tax expense, each subtopic will be examined in order to gain a comprehensive perspective of ASC 740 and apply this insight to the concept of income tax reporting ("FASB Accounting Standards Codification®").

In the Overall Subtopic of ASC 740, also known as ASC 740-10, guidance for recognizing and measuring tax positions taken or expected to be taken in a tax return that directly or indirectly affect amounts reported in financial statements is provided. In other words, ASC 740-10 examines how deferred income tax assets, deferred income tax liabilities, and income tax expenses flow into the income statements, statements of comprehensive income, balance sheets, statements of cash flows, and statements of stockholders' equity. This Subtopic also measures deals with evaluating and measuring tax positions based on their technical aspects and determining the amounts that should be reported on the financial statements. This Subtopic is helpful in understanding the way in which the technical aspects of tax allocations affect the financial statements ("IAS Plus").

The second Subtopic of ASC 740 is ASC 740-20, or Intraperiod Tax Allocation, which addresses the process of allocating total income tax expense of benefit for a period to different components of comprehensive income and shareholders' equity. These components include continuing operations, discontinued operations, and other comprehensive income. This Subtopic

is relevant to a company's reporting deferred income taxes as part of their total income tax expense because it provides information on where and how these expenses should be allocated within the financial statements within a period ("IAS Plus").

ACS 740-30, or Other Considerations or Special Areas, is the third Subtopic of ASC 740. This subtopic identifies specific limited exceptions from Subtopic 740-10 to provide the required accounting and disclosure guidance for these items. This Subtopic usually deals with differences related to investments in subsidiaries and corporate joint ventures arising from undistributed earnings or other causes. This topic is relevant because it identifies special items that could affect the deferred income taxes and income tax expenses for the given period ("IAS Plus").

The fourth and final subtopic of ASC 740 is ASC 740-270, Interim Reporting. This Subtopic describes the general computation of interim period income taxes, the application of the general computation to specific situations, the interim period income taxes requirements applicable to significant unusual or infrequently occurring items and discontinued operations, special computations applicable to operations taxable in multiple jurisdictions, guidelines for reflecting the effects of new tax legislation in interim period income tax provisions, and disclosure requirements. This Subtopic is perhaps the most relevant to the question at hand because it deals with the ways in which income taxes should be computed and allocated to various periods.

The above summary and analysis of ASC 740 and its components is helpful in understanding the components of deferred income taxes and income tax expenses and the ways in which these complexities affect the financial statements. Now that a basis of understanding of ASC 740 has been established, analysis of this standard's effects on deferred income taxes and income tax expenses in certain periods may be performed ("IAS Plus").

For a given year, companies must report their tax provisions as not only the amounts currently due, but also the change in the cumulative future tax consequences of items that have

been reported for financial reporting purposes in one year and taxable income purposes in another year. In other words, deferred income tax assets and liabilities are reported as a part of total income tax expense. According to ASC 740, the total tax expense is meant to match the components of pretax income with their related tax effects in the same year, regardless of when the amounts are actually reported on the tax return. The goal of this reporting standard is to match revenues with expenses in a given period. As previously mentioned, taxable income is determined on a cash basis, while pretax financial income is reported on an accrual basis. This difference in reporting methods can result in differences in income tax expenses on the income statement versus income taxes payable on the income tax return, so this standard was established to attempt to address this difference by matching income tax expenses for a given period with revenues reported in that period ("US PwC").

d. Explain what deferred income tax assets and deferred income tax liabilities represent. Give an example of a situation that would give rise to each of these items on the balance sheet.

A deferred income tax asset is reported as on a company's balance sheet, and it may be used in the future to reduce taxable income. A deferred tax asset arises when a temporary difference between taxable income and pretax financial income causes taxable income to be greater than pretax financial income. An example of a situation that would give rise to a deferred tax asset on the balance sheet is when a company receives prepaid rent and records the money received as unearned rent revenue. Because taxable income is recorded on a cash basis, taxable income would increase in this situation. Pretax financial income, however, is recorded on an accrual basis, so this transaction has no effect on pretax financial income. With all else held constant, due to the increase in taxable income over pretax financial income, a company's income taxes payable (credit balance) for the year become greater than the company's income tax expense (debit balance) that it records on the income statement. This difference gives rise to a deferred tax asset.

As the company earns the rent revenue in future periods, this temporary difference will reverse itself.

A deferred income tax liability is reported on a company's balance sheet, and it decreases taxable income in the current period while increasing taxable income in future periods. A deferred tax liability arises when a temporary difference between taxable income and pretax financial income causes pretax financial income to be greater than taxable income. An example of a situation that would give rise to a deferred tax liability is when the company has an excess of tax depreciation over book depreciation. With all else held constant, due to the increase in pretax financial income over taxable income, a company's income taxes payable (credit balance) for the year becomes less than the company's income tax expense (debit balance) that it records on the income statement. This difference gives rise to a deferred tax liability. During future periods, this temporary difference will reverse itself.

e. Explain what a deferred income tax valuation allowance is and when it should be recorded.

If a company anticipates that it is more likely than not that it will not realize a portion of its deferred tax asset account, it must use a deferred income tax valuation allowance. The deferred income tax allowance account has a normal credit balance, and it is a contra account to the deferred tax asset account. This account reduces the deferred tax asset to its net realizable value. Increasing the valuation allowance increases deferred income tax expense. The deferred tax liability account does not need a contra valuation account because it is a liability in nature, and liabilities do not need to be reduced to their net realizable values.

f. Consider the information disclosed in Note 8 – Income Taxes to answer the following questions:

i. Using information in the first table in Note 8, show the journal entry that ZAGG recorded for the income tax provision in fiscal 2012?

For the income tax provision in fiscal 2012, ZAGG recorded the following entry (in thousands):

Income tax expense – Income statement	9,393 DR	
Deferred tax asset, net of deferred tax liability	8,293 DR	
Income tax payable		17,686 CR

Currently, the company has to pay the government $17,686.

ii. Using the information in the third table in Note 8, decompose the amount of "net deferred income taxes" recorded in income tax journal entry in part f. i. into its deferred income tax asset and deferred income tax liability components.

Income tax expense (shown above)	9,393 DR	
Deferred tax asset, net of valuation allowance	8,002 DR	
Deferred tax liability (plug)	291 DR	
Income tax payable		17,686 CR

The total deferred tax asset in 2011 is reported at $6,300. In 2012, the total deferred tax asset is reported at $14,302, yielding a difference of $8,002 for the deferred tax asset entry. This number can be reconciled by examining the change in the total gross deferred tax liabilities account found on the footnotes to the financial statements. From 2011 to 2012, this account decreased from $1,086 to $794, a $292 difference (amounts not exact due to rounding.)

iii. The second table in Note 8 provides a reconciliation of income taxes computed using the federal statutory rate (35%) to income taxes computed using ZAGG's effective tax rate. Calculate ZAGG's 2012 effective tax rate using the information provided in their income statement. What accounts for the difference between the statutory rate and ZAGG's effective tax rate?

ZAGG's effective tax rate for 2012 is 39.3%. This number can be found by dividing the company's income tax expense ($9,393) by the pretax financial income of ($23,898). The statutory rate is different from the company's effective tax rate because ZAGG incurred permanent differences during 2012 such as non-deductible expenses.

iv. According to the third table in Note 8 – Income Taxes, ZAGG had a net deferred income tax asset balance of $13,508,000 at December 31, 2012. Explain where this amount appears on ZAGG's balance sheet.

This number is the sum of the company's current deferred income tax assets of $6,912 and its noncurrent deferred income tax assets of $6,596.

Chapter 12: Apple, Incorporated

Introduction

The goal of this case study is to familiarize students with ASC 606, the new revenue recognition standard. Through analysis of Apple, Inc.'s financial statements, independent research, and critical thinking, students were tasked with defining and explaining critical terms in regard to revenue recognition and making decisions concerning the appropriate application of the new revenue recognition standard.

From this case study, I gained a more thorough understanding of the ASC 606 itself and the appropriate application of the new revenue recognition standard. I am now able to more easily identify the steps in the revenue recognition process and apply these steps in order to determine how to appropriately record a transaction. Analyzing a company such as Apple, Inc.'s financial statements and footnotes and applying my knowledge about revenue recognition to real-world situations gave me a deeper appreciation for the importance of properly recognizing and recording revenue and a better understanding of how revenue recognition standards are put into practice in the world of business. I enjoyed this application of knowledge because it felt more valuable to me than simply memorizing terms from a textbook.

I have derived many future benefits from completing this case study. Firstly, this case study will be beneficial to me in my future career as an auditor because it allowed me to practice analyzing financial statements and apply knowledge to a real-world situation. Secondly, this case study encouraged me to think critically about revenue recognition fraud and ways in which managers could falsely report revenue, which will be beneficial to me in considering internal controls to implement if I ever hold a management position. Next, this case study allowed me to

practice my research skills in order to gather knowledge about a specific situation and apply that knowledge in order to make decisions regarding appropriate business practices. Lastly, this case study helped me prepare for my Intermediate Accounting final, and revenue recognition is a topic that will appear on this exam.

a. In your own words, define "revenues." Explain how revenues are different from "gains."

Revenues are arguably the most relevant and commonly used measure of the financial health of a company. Revenues are the amounts of money that companies earn over specified periods of time for performing normal business operations. Revenues are recorded by crediting some type of revenue account and debiting an asset account. Revenues should only be recognized when they are earned by the company. Gains is the result from peripheral activities of companies. Peripheral activities are nonessential to a company's core operations; they are not a main source of income. For example, if a company that delivers donuts delivered a batch of donuts to a customer, the money earned from this transaction would be classified as revenue because these activities are the business's main functions. If, however, the company sold one of its delivery trucks for a price greater than its book value, this money would be recognized as a gain because this activity is peripheral; it is not a main source of income for the donut delivery company.

b. Describe what it means for a business to "recognize" revenues. What specific accounts and financial statements are affected by the process of revenue recognition? Describe the revenue recognition criteria outline in the FASB's Statement of Concepts No. 5. Use the new revenue recognition standard from ASC 606 to answer the question.

For a business, revenue recognition means that the entity expects to realize an amount earned from the transfer of good or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. In simpler terms, for a business to recognize revenues, it must have completed its performance obligation and

expect to receive consideration for this performance. The new revenue recognition standard from ASC 606 outlines the steps that an entity should follow in the process of revenue recognition ("IAS Plus").

1. Identify the contract with the customer. The key to contract identification is the creation of enforceable rights and obligations within the agreement between two parties.

2. Identify the performance obligations within the contract. These performance obligations must be distinct from one another and distinct within the contract.

3. Determine the transaction price. In some cases, the company may need to take into account the time value of money in order to appropriately determine the transaction price.

4. Allocate the transaction price to the performance obligations. This step is especially critical when dealing with a bundle purchase. In the case of a bundle purchase, an entity should allocate the transaction price to each performance obligation based on relative standalone selling prices of each performance obligation.

5. Recognize revenue as each performance obligation is satisfied. Performance obligations may be satisfied in total when goods and services are delivered or completed, or they may be satisfied over time as is the case in long-term construction contracts. In the case of the former, the total amount of revenue should be recognized when the performance obligation is satisfied. In the case of the latter, revenue should be recognized over time as performance obligations are satisfied.

As revenue is recognized, a credit should be made to some sort of revenue account. Depending on the terms of the contract and nature of the transaction, a debit should be made to

some type of asset account. Accounts such as cash, accounts receivable, equipment, land, or other asset accounts should be debited. Therefore, earning revenue increases the company's equity and assets.

c. Refer to the Revenue Recognition discussion in Note 1. In general, when does Apple recognize revenue? Explain Apple's four revenue recognition criteria. Do they appear to be aligned with the revenue recognition criteria you described in part b, above? Answer the question using Apple's most recent 10K.

According to the financial statements presented in the case, Note 1 reads, "The Company recognizes revenue when persuasive evidence of an arrangement exists, delivery has occurred, the sales price is fixed or determinable, and collection is probable." In other words, Apple recognizes revenue when a contract has been established, transfer of ownership has occurred, the transaction price has been determined and allocated, and collection of consideration is determined to be likely. Note 1 also states that in order for an item to be considered delivered, it has to be shipped and the title and risk of loss have to be transferred. For online sales, however, revenue recognition is deferred until the customer receives the product because Apple legally retains a portion of the risk of loss on these sales during transit. These revenue recognition standards appear to be reasonably aligned with the revenue recognition criteria described in part b. The company is performing all five steps of the revenue recognition process outlined in ASC 606; Apple is simply consolidating determining the transaction price and allocating that transaction price into one single step, which is reasonably permissible.

According to Apple's most recent (2017) 10K:

"The new revenue standards may be applied retrospectively to each prior period presented or retrospectively with the cumulative effect recognized as of the date of adoption. The Company will adopt the new revenue standards in its first quarter of 2019

utilizing the full retrospective transition method. The new revenue standards are not expected to have a material impact on the amount and timing of revenue recognized in the Company's consolidated financial statements."

This statement in Apple's most recent 10K means that Apple has not yet applied the new revenue standards to its financial reports. However, Apple's revenue recognition standards utilized on this financial report do appear to be aligned with the new revenue recognition standards because Apple does not expect the new standards to have a material impact on the amounts or timing of future revenue that will be recognized.

d. What are multiple-element contracts and why do they pose revenue recognition problems for companies?

Many companies are complex and diversified entities, so they offer a wide range of products and services to customers. Often, these products and services are bundled and negotiated together under one single transaction price that represents a contract with multiple deliverables. This single contract written under one transaction price with multiple deliverables is a multiple-element contract. These multi-element contracts pose revenue recognition problems for companies because they can involve up-front payments, both product and service deliverables, and multiple payment streams. These complex issues can pose problems for companies in regard to allocating the transaction price to each product and service and determining when revenue is earned in this process. For example, a company such as Apple may sell tangible products and software for one bundled price. The payment for this transaction could be made entirely up-front, or payments may be made over time. When dealing with this multi-element arrangement, Apple must determine how to allocate this single transaction price to separate performance obligations and recognize revenue as it performs specific performance obligations within the contract ("Revenue Recognition Guidance: Multiple-Element Arrangements | Deloitte US | Audit").

e. In general, what incentives do managers have to make self-serving revenue recognition choices?

Managers may make self-serving revenue choices in order to artificially inflate revenue and therefore income for a year or to enhance the appearance of certain financial ratios. If managers are compensated based on financial measures such as increases in revenue, income, return on equity, or profit margin, managers may be inclined to make self-serving revenue decisions. Managers may also be inclined to make these decisions if they are compensated based on stock price, which may be influenced by any of these measures. For example, if a manager is compensated based on short-term financial measures involving the temporary increase in revenue, he or she may be more inclined to recognize revenue before it has actually been earned, which is not in compliance with the new revenue recognition standard from ASC 606.

f. Refer to Apple's revenue recognition footnote. In particular, when does the company recognize revenue for the following types of sales? Explain why you've determined each treatment using relevant citations from the Codification.

i. iTunes songs sold online.

For iTunes songs sold online, the company recognizes revenue in accordance with general revenue recognition accounting guidance. This statement means that Apple recognizes revenue in accordance with the five criteria mentioned in part b. Therefore, whenever Apple sells a song on iTunes, it recognizes revenue whenever the company is legally entitled to payment, has determined the price of the song, and the customer owns legal rights to listen to the song. In these situations, Apple is recognizing revenue in the way that it should because its policies are in accordance with ASC 606-10-25-23. In some instances, Apple sells software and peripheral products obtained from other companies. In these cases, Apple accounts for sales on a net basis by recognizing only the commission that it retains from each sale.

ii. Mac-branded accessories such as headphones, power adaptors, and backpacks sold in the Apple stores. What if the accessories are sold online?

For these products sold in stores, Apple recognizes revenue when ownership of the product has been transferred to the customer and Apple is legally entitled to payment. In some cases, this transfer of ownership occurs in stores when the sale is made. If the product must be shipped to the customer, Apple typically recognizes revenue at the time that the product is shipped. For accessories sold online, Apple defers revenue until the customer receives the product because Apple legally retains a portion of the risk of loss on these sales during transit. Again, I agree with the way in which Apple handles its revenue recognition in these instances because the company is following the guidelines in ASC 606-10-25-23 and recognizing revenue as it is earned.

iii. iPods sold to a third-party reseller in India.

The company continues to recognize revenue based on the four criteria mentioned in part c. Therefore, whenever the product has been shipped to a third-party reseller in India, Apple can reasonable determine that a sale has been made and recognize revenue. Apple is recognizing revenue in accordance with ASC 606-10.

iv. Revenue from gift cards

Apple recognizes revenue from gift cards as deferred revenue upon the sale of the care, which is relieved upon redemption of the card by the customer. Because no performance obligation has yet been satisfied, Apple is correct in deferring its revenue recognition until the gift cards are redeemed. Apple is recognizing revenue according to ASC 606-10.

APPENDIX

Table 15: Recording Basic Transactions, Chart of Accounts—Assets

Home Heaters						
Part A: Recording Basic Transactions						
Chart of Accounts						
12-31-20X1						
Assets				=		
	Cash	Accounts Receivable	Inventory	Land	Building	Equipment
No. 1	$ 160,000					
No. 2	400,000					
No. 3	- 420,000			$ 70,000	$ 350,000	$ 80,000
No. 4	- 80,000					
No. 5			$ 239,800			
No. 6		398,500				
No. 7	299,100	299,100				
No. 8	- 213,360					
No. 9	- 20,000					
	- 21,000					
No. 10	- 34,200					
No. 11	- 23,200					
No. 12						
Balances	**$ 47,350**	**$ 99,400**	**$ 239,800**	**$ 70,000**	**$ 350,000**	**$ 80,000**

Table 16: Recording Basic transactions, Chart of Accounts—Liabilities and Equity

Home Heaters					
Part A: Recording Basic Transactions					
Chart of Accounts					
12-31-20X1					
	Liabilities			+ Stockholders' Equity	
	Accounts payable	Note payable	Interest payable	Common Stock	Retained earnings
No. 1				$ 160,000	
No. 2			$ 400,000		
No. 3					
No. 4					
No. 5	$ 239,800				
No. 6					$ 398,500
No. 7					
No. 8	- 213,360				
No. 9		- 20,000			
					- 21,000
No. 10					- 34,200
No. 11					- 23,200
No. 12					- 6,650
Balances	**$ 26,440**	**$ 380,000**	**$ 6,650**	**$ 160,000**	**$ 313,450**

Table 17: Home Heaters Trial Balance

Home Heaters		
Trial Balance - Part A		
December 31, 20X1		
	Debits	**Credits**
Cash	$ 47,340	
Accounts Receivable	99,400	
Inventory	239,800	
Land	70,000	
Building	350,000	
Equipment	80,000	
Accounts Payable		$ 26,440
Notes Payable		380,000
Interest Payable		6,650
Common Stock		160,000
Dividend	23,200	
Sales		398,500
Other operating expenses	34,200	
Interest expense	27,650	
Total	**$971,590**	**$971,590**

Table 18: Recording Additional Information—Glenwood Heating, Inc.

Glenwood Heating, Inc.					
Part B: Recording Additional Information					
December 31, 20X1					
	Assets				
Transaction	Cash	Accounts Receivable	Allowance for Bad Debts	Inventory	Land
Balances: Part A	$ 47,340	$ 99,400		$ 239,800	$ 70,000
Part B (1) Bad debts			$ 994		
Part B (2) COGS				- 177,000	
Part B (3) Depreciation					
Building					
Equipment					
Part B (4) Equipment Rental Payment	- 16,000				
Part B (5) Income tax Balances					
Balances	**$31,340**	**$ 99,400**	**$ 994**	**$ 62,800**	**$70,000**

Table 19: Recording Additional Information—Glenwood Heating, Inc.

Glenwood Heating, Inc.				
Part B: Recording Additional Information				
December 31, 20X1				
	Assets			=
Transaction	Building	Accumulated Depreciation - Building	Equipment	Accumulated Depreciation - Equipment
Balances: Part A	$ 350,000		$ 80,000	
Part B (1) Bad debts				
Part B (2) COGS				
Part B (3) Depreciation				
Building		$ 10,000		
Equipment				$ 9,000
Part B (4) Equipment Rental Payment				
Part B (5) Income tax Balances				
Balances	**$ 350,000**	**$ 10,000**	**$ 80,000**	**$ 9,000**

Table 20: Recording Additional Information—Glenwood Heating, Inc.

Glenwood Heating, Inc.					
Part B: Recording Additional Information					
December 31, 20X1					
	Liabilities +			Stockholders' Equity	
Transaction	Accounts Payable	Interest Payable	Note Payable	Common Stock	Retained Earnings
Balances: Part A	$ 26,440	$ 6,650	$ 380,000	$ 160,000	$ 313,450
Part B (1) Bad debts					- 994
Part B (2) COGS					- 177,000
Part B (3) Depreciation					
Building					- 10,000
Equipment					- 9,000
Part B (4) Equipment Rental Payment					- 16,000
Part B (5) Income tax Balances					
Balances	**$ 26,440**	**$ 6,650**	**$ 380,000**	**$ 160,000**	**$ 100,456**

Table 21: Recording Additional Information—Eads Heaters, Inc.

Eads Heaters, Inc.					
Part B: Recording Additional Information					
December 31, 20X1					
	Assets				
Transaction	Cash	Accounts Receivable	Allowance for Bad Debts	Inventory	Land
Balances: Part A	$ 47,340	$ 99,400		$ 239,800	$ 70,000
Part B (1) Bad debts			$ 4,970		
Part B (2) COGS				- 188,800	
Part B (3) Depreciation					
Building					
Equipment					
Part B (4) Equipment					
Rental Payment	- 16,000				
Depreciation					
Part B (5) Income tax Balances	-23505				
Balances	**$ 7,835**	**$ 99,400**	**$ 4,970**	**$ 51,000**	**$ 70,000**

Table 22: Recording Additional Information—Eads Heaters, Inc.

Eads Heaters, Inc.				
Part B: Recording Additional Information				
December 31, 20X1				
	Assets			=
Transaction	Building	Accumulated Depreciation - Building	Equipment	Accumulated Depreciation - Equipment
Balances: Part A	$ 350,000		$ 80,000	
Part B (1) Bad debts				
Part B (2) COGS				
Part B (3) Depreciation				
Building		$ 10,000		
Equipment				20,000
Part B (4) Equipment			92,000	
Rental Payment				
Depreciation				11,500
Part B (5) Income tax Balances				
Balances	**$ 350,000**	**$ 10,000**	**$ 172,000**	**$ 31,500**

Table 23: Recording Additional Information—Eads Heaters, Inc.

Eads Heaters, Inc.					
Part B: Recording Additional Information					
December 31, 20X1					
	Liabilities +			Stockholders' Equity	
Transaction	Accounts Payable	Interest Payable	Notes Payable	Common Stock	Retained Earnings
Balances: Part A	$ 26,440	$ 6,650	$ 380,000	$ 160,000	$ 313,450
Part B (1) Bad debts					- 4,970
Part B (2) COGS					- 188,800
Part B (3) Depreciation					
Building					- 10,000
Equipment					- 20,000
Part B (4) Equipment			92000		
Rental Payment			-8640		- 7,360
Depreciation					- 11,500
Part B (5) Income tax Balances					-23505
Balances	$ 26,440	$ 6,650	$ 463,360	$ 160,000	$ 47,315

Table 24: Adjusted Trial Balance—Glenwood Heating, Inc.

Glenwood Heating, Inc.		
Part B: Adjusted Trial Balance		
December 31, 20X1		
	Debits	**Credits**
Cash	$ 426	
Accounts receivable	99,400	
Allowance for bad debts		$ 994
Inventory	62,800	
Land	70,000	
Building	350,000	
Accumulated depreciation - building		10,000
Equipment	80,000	
Accumulated depreciation - equipment		9,000
Accounts payable		26,440
Interest payable		6,650
Note payable		380,000
Common Stock		160,000
Dividend	23,200	
Sales		398,500
Cost of goods sold	177,000	
Other operating expenses	34,200	
Bad debt expense	994	
Depreciation expense - building	10,000	
Depreciation expense - equipment	9,000	
Rent expense	16,000	
Interest expense	27,650	
Provision for income tax	30,914	
Total	**$991,584**	**$991,584**

Table 25: Adjusted Trial Balance—Eads Heaters, Inc.

Eads Heaters, Inc.		
Part B: Trial Balance		
December 31, 20X1		
	Debits	**Credits**
Cash	$ 7,835	
Accounts receivable	99,400	
Allowance for bad debts		$ 4,970
Inventory	51,000	
Land	70,000	
Building	350,000	
Accumulated depreciation - building		10,000
Equipment	172,000	
Accumulated depreciation - equipment		31,500
Accounts payable		26,440
Interest payable		6,650
Note payable		463,360
Common Stock		160,000
Dividend	23,200	
Sales		398,500
Cost of goods sold	188,800	
Other operating expenses	34,200	
Bad debt expense	4,970	
Depreciation expense - building	10,000	
Depreciation expense - equipment	31,500	
Rent expense		
Interest expense	35,010	
Provision for income tax	23,505	
Total	**$ 1,101,420**	**$1,101,420**

Table 26. Income Statement—Glenwood Heating, Inc.

Glenwood Heating, Inc.		
Income Statement		
For the Year Ended December 31, 20X1		
Sales revenue		$ 398,500
Cost of goods sold		177,000
Gross profit		$ 221,500
Less: Operating expenses		
Bad debt expense	$ 994	
Depreciation expense - building	10,000	
Depreciation expense - equipment	9,000	
Rent expense	16,000	
Interest expense	27,650	
Other operating expenses	34,200	$ 97,844
Income before income tax		$ 123,656
Less: Income Tax		30,914
Net income for the year		**$ 92,742**

Table 27: Income Statement—Eads Heaters, Inc.

Eads Heaters, Inc.		
Income Statement		
For the Year Ended December 31, 20X1		
Sales revenue		$ 398,500
Cost of goods sold		188,800
Gross profit		$ 209,700
Less: Operating expenses		
Bad debt expense	$ 4,970	
Depreciation expense - building	10,000	
Depreciation expense - equipment	31,500	
Interest expense	35,010	
Other operating expenses	34,200	$ 115,680
Income before income tax		$ 94,020
Less: Income Tax		23,505
Net income for the year		**$ 70,515**

Table 28: Statement of Retained Earnings—Glenwood Heating, Inc.

Glenwood Heating Inc.	
Statement of Retained Earnings	
For the Year Ended December 31, 20X1	
Beginning Retained Earnings	$ -
Add: Net income	92,742
Less: Cash dividends	23,200
Retained earnings, December 31	**$ 69,542**

Table 29: Statement of Retained Earnings—Eads Heaters, Inc.

Eads Heaters, Inc.	
Statement of Retained Earnings	
For the Year Ended December 31, 20X1	
Beginning Retained Earnings	$ -
Add: Net income	70,515
Less: Cash dividends	23,200
Retained earnings, December 31	**$ 47,315**

Table 30: Balance Sheet—Glenwood Heating, Inc.

Glenwood Heating, Inc.			
Balance Sheet			
As of December 31, 20X1			
Assets			
Current assets			
Cash			$ 426
Accounts receivable	$ 99,400		
Less: Allowance for Doubtful Accounts	994		98,406
Inventory			62,800
Total current assets			$ 161,632
Property, Plant, and Equipment			
Land		$ 70,000	
Building	350,000		
Less: Accumulated depreciation - building	10,000	340,000	
Equipment	80,000		
Less: Accumulated depreciation--equipment	9,000	71,000	
Total property, plant, and equipment			$ 481,000
Total assets			**$ 642,632**

Table 31: Balance Sheet—Glenwood Heating, Inc.

Balance Sheet		
As of December 31, 20X1		
Liabilities and Stockholders Equity		
Current liabilities		
Notes payable--current portion	$ 20,000	
Accounts payable	26,440	
Interest payable	6,650	
Total current liabilities		$ 53,090
Long term liabilities		
Notes payable		360,000
Total liabilities		$ 413,090
Stockholders' equity		
Common stock, $50.00 par value, issued and outstanding, 3200 shares	160,000	
Retained earnings	69,542	
Total stockholders' equity		$ 229,542
Total liabilities and stockholders' equity		**$ 642,632**

Table 32: Balance Sheet—Eads Heaters, Inc.

Eads Heaters, Inc.			
Balance Sheet			
As of December 31, 20X1			
Assets			
Current assets			
Cash			$ 7,835
Accounts receivable	$ 99,400		
Less: Allowance for Doubtful Accounts	4,970		94,430
Inventory			51,000
Total current assets			$ 153,265
Property, Plant, and Equipment			
Land		$ 70,000	
Building	350,000		
Less: Accumulated depreciation - building	10,000	340,000	
Equipment	172,000		
Less: Accumulated depreciation - equipment	31,500	140,500	
Total property, plant, and equipment			$ 550,500
Total assets			**$ 703,765**

Table 33. Balance Sheet—Eads Heaters, Inc.

Eads Heaters, Inc.			
Balance Sheet			
As of December 31, 20X1			
Liabilities and Stockholders Equity			
Current liabilities			
Notes payable - current portion		$ 29,330	
Accounts payable		26,440	
Interest payable		6650	
Total current liabilities			$ 62,420
Long term liabilities			
Notes payable			434,030
Total liabilities			$ 496,450
Stockholders' equity			
and outstanding, 3200 shares		160,000	
Retained earnings		47,315	
Total stockholders' equity			$ 207,315
Total liabilities and stockholders' equity			**$ 703,765**

Table 34: Supporting Ratios for Investment and Lending Decisions

Home Heaters, Inc.		
Supporting Calculations for Investments and Lending Decisions		
December 31, 20X1		
	Glenwood Heating, Inc.	**Eads Heaters, Inc.**
Debt-to-equity ratio	1.80	2.39
Times interest earned	5.47	3.69
Profit margin	23.27%	17.70%
Return on total assets	14.43%	10.02%
Return on common stockholders' equity	40.40%	34.01%

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